DECENNIAL.

THE HORTICULTURIST.

Its History, Progress, and Present Position.

PROBABLY there have been few periodicals of its limited circulation that have had around it a more attached and select list of readers. It was *popular*, in the truest sense, from the moment it was known; though it never attained a very large patronage in comparison with some works of similar price, it found at once an appreciative audience all over the country. Like a new railroad through a not over populous tract, it made its own customers, if we leave out of view the few who were found ready-made; but the latter were not numerous. As time progressed, the tract settled, the passengers increased, and, with every rolling year, those numbers have multiplied. It was undertaken with a view to the public good, but it was never very successful, in a commercial view, till the year 1854, from which period its increase of readers to a reasonably paying point may be dated.

The first number was issued on July 1, 1846, just ten years since; it came full-fledged from the press; its plan has been adhered to with little variation; its topics are much the same as they were at first; the progress of knowledge that has been made by cultivators, is regularly marked in its pages; in some things, on which the ideas of many were crude and unformed, principles have been established; the writers themselves have made progress; false notions have given place to correct views; in rural architecture, the best lessons have been taught, and are largely practised. In some matters, the standard is so well established, that it would be useless to dwell any longer upon them, while new topics are constantly coming forward, where, indeed, the topics are inexhaustible.

In Pomology, and all the branches of fruit culture, the *Horticulturist* has been a pioneer; aided by the best minds in the country, this topic early attracted attention, and its founder, in this pursuit, was an acknowledged master, under whose direction the subject was safe. The strides made in this department are perfectly astonishing. And yet this ten years has been a period of a most desperately fought battle, in which it is to be regretted that the pomologists have been very partially the conquerors. The armies and implements employed for the siege have been pigs, poultry, and mallets; for powder, lime and sulphur; tree quaking and shaking, and the whole paraphernalia of deadly weapons have not routed the enemy, who, from the crescent-shaped puncture he makes in our fruits, is called "The Turk." Most heroically has he stood the siege, looking down upon his enemies with an equanimity and contempt highly creditable to his stoicism. The curculio has been a more "fruitful" topic of this work than any other; it is quite curious to trace in its pages the progress of the war; the bulletins, proclamations, sieges, mines, syringings, hard knocks, and anathemas, that have been expended in vain; he remains very much master of the field, not having been alarmed in the least by the committee appointed to blow him up, or the secret remedy which has been held so long *in terrorum* over his head. He is the wealthiest enemy ever attacked, being worth millions of *plums!*

In architecture, the work soon took a position which produced the happiest results. The mock Grecian fashion, then at its height, fell like a pack of loose cards; the *Horticulturist* was soon an authority to coax or to shame the builder in the country. We do not mean to say, that every one of the designs presented in the work was perfect—far from it. The editor, as must be the case with all successful conductors of the press, was himself a *learner*,* yet he enunciated so many truths, that the public taste was, at least, bent in the right direction. But for this effort, our extensive land would have been strewed with abortive attempts at the sublime, the beautiful, and the prodigious. Perfection is not to be reached in a ten years' journey in any great art, but we are much nearer to it than we were in those days of ignorant pretension, and consequent erroneous execution.

Gardening has received an impetus during this decade that is very marked. The experience of "old diggers" and young delvers, has been freely communicated—line upon line, and precept upon precept, till here, too, we have settled some principles of the greatest moment, and we now produce, with the aid of guano and better adapted manures than formerly, nearly twice as much in a garden of given extent, and more valuable products by far than we did a few years ago; this too, at less cost, and of better quality. The strawberry culture is improved and understood, and better varieties have become abundant. New introductions of various kinds have been adopted, and in all cases this periodical has been the pioneer in announcing the coming benefit, no less than in recording the best modes for its culture.

It is very true in this as in architecture, we have yet much to learn; it is also true, that like good scholars, we are conning over our lessons with praiseworthy attention, but, in the midst of it all, it is remarkable that we let some things that we once knew slip by us and be forgotten. As an instance: in an early number, we were informed that the best Black Hamburgh Grapes were obtained, and prizes given for them, from a mere shed built on a fence for the back, and with the melon frames, when done with in spring, used for the roofs; and yet, we still go on with expensive buildings for raising grapes, and have not yet produced the foreign fruit in such abundance as to be either cheap or plenty; on the contrary, these grapes command double the price they did in 1846. How is this? The necessity for glass at all, is to prevent mildew; it may yet be found, that a fence and prepared or oiled muslin, will answer every purpose, as we know that, in some seasons, these foreigners succeed very well without any covering whatever. But this in parenthesis, and by the way, for there are many forgotten good things in the ten past volumes, as we can testify after a recent careful reperusal of the whole.†

A marked improvement has taken place within the period we are commenting on, in the *character* of the nursery business, and the nurserymen engaged in it. Not that *all* have become more honest, for there were many good men in the business before; but we allude to the correctness with which fruit-trees are named and sold. The kinds of fruits are now so much better known and understood, that to be successful, the nurseryman has to be correct; honesty is his best policy, as it is known to be in other matters; formerly, detection was more difficult,

* To teach is to learn; according to an old experience, it is the very best mode of learning—the surest and the shortest. And hence, perhaps, it may be, that in the middle ages, by the monkish word *scholaris* was meant, indifferently, he that learned, and he that taught.

† It is a work of reference as well as for its regular monthly reading, that the *Horticulturist* is especially valuable. We have been much pleased to find the whole ten volumes extremely interesting, and cannot point out any other periodical work that bears a reperusal so well. A complete set is a valuable possession, now rare.

because neither the purchaser nor his neighbors could tell whether he had been deceived or not.

One great benefit of the work was its calling forth the latent talent of numerous writers who had no suitable vehicle through which to communicate with kindred minds. In a pursuit where there should be no patents, and where but few are ever taken out, a pursuit the pleasure of which is so eminently enhanced by sympathy and association, it was to be expected that good and true disciples would be willing to distribute their information. It has so proved.

The example was highly beneficial to the farming interests throughout the States. In theory, the sister arts are the same; when this periodical taught the true modes of going to work, and that it could be conducted without petty jealousies and wranglings, the agricultural caught some of the tone and spirit of the horticultural mind; books on agriculture have multiplied immensely, and are read by thousands who have happily discarded the old opinion, that book knowledge was only fitted for what are called professional men; getting rid of that fancy is a great good. That horticulture is not as prominent or as popular a topic as agriculture, is proved by the great increase of periodicals on the latter, and the slow multiplication of the former. Various attempts have been made, almost yearly, to graft other horticultural periodicals on the public tree, but all of them have been unsuccessful; they lived a sickly, short-lived existence, got "the blight," and were cut down. So far, the *Horticulturist*, and Hovey's *Magazine*, the latter a forerunner of Downing's, are the sole representatives of their species in America.

We have alluded to the slow though regular increase of the patrons of this work; as we wish to have no concealments with our readers, we may again state that the increase in its circulation is steady and gratifying. More than a thousand additional names have been added since the year just expired came in, when it was placed in the hands of the present publisher; the prospect is now certain that its patrons will number between five and six thousand before the close of the present volume.*

The custom pursued by the publishers of this work, is the true one to insure a wholesome circulation. At the expiration of the year, the subscription book is thrown aside, and a new one procured, in which the names are entered as payments are made, so that it is not sent, from year to year, to persons who do not desire to receive it; the publisher knows that all who get it, want it. This method is not the one which counts the largest number of subscribers, but, in a circle of readers extending over the whole Union, and even beyond it, this method is found to be the most satisfactory to all parties. We mention it now, because some regular readers did not understand their non-reception of the January number, and wrote to the editor to inquire.

It would be easy to prove that it is strongly the interest of men engaged in the sale of fruit and ornamental trees, and flowers, to promote our circulation, because the more a taste is diffused for horticulture, the greater must be the demand for their products. When Lindley's *Gardeners' Chronicle* was first issued, the most ignorant gardeners of England concluded that the more informa-

* Some readers who have not taken the work from the commencement, are sometimes puzzled to know how the *Horticulturist* numbered ten volumes in nine and a half years. It commenced July 1, 1846, but it was found, that to date from January to December was a more convenient arrangement to both subscriber and publisher, and the last six months of 1850, or half a year, was called a volume, for the purpose of commencing in January, 1851, with a new one; so that, though this is the eleventh volume, to-day commences the decennial or tenth year of its existence. The original price was three dollars a year, without any colored edition, and with illustrations very inferior in execution to the present.

tion given to the employer, the less would be the demand for their services! This absurd idea was easily dissipated, and time has amply proved its error. It has even been argued successfully, that it will answer a good purpose to the nurseryman to *give away* his products for a time, till neighborhoods have imbibed a taste for their possession. These are great steps in a forward direction.

As Dr. Ward remarked, in his first article on the Culture of the Pear, "the rubbish is but just cleared away." This will apply to other horticultural topics; books are now multiplied on horticultural subjects to an extent that was unheard of ten years ago; we have separate reliable works on the Pear, the Grape, the Apple, the Peach, the Cherry, Strawberry, and even the Cranberry and Blackberry, and a handbook on Ornamental Trees, and many on Flowers and Gardening in general; these are so cheap as to be accessible to all, and most of them may date their existence to the taste created by the *Horticulturist*.* Then we have the State and the Pomological reports, annually giving the collected wisdom of the most practical men, for reference and study; the newspapers, too, have taken up our topics; the ball set in motion, the discussion and comparison of facts has cleared the atmosphere; what is yet needed is doing, or to be done, by practical minds, leaving the *Horticulturist* to chronicle results rather than entirely to pioneer opinion, or more than suggest future action. The rubbish being cleared away, Pomology an established science, and every year revealing its facts, the present and future course of this work is one of pleasure; the walks are dug, the stone drains laid, the gravel is placed and rolled, and we are in the position of visitors to a cultivated garden, with liberty to amuse and enjoy ourselves; to point out improvements annually, select our best fruits and most imposing trees and shrubbery, and as good fortune and science offer an opportunity, or bring something better, impart the knowledge to one's neighbors; the house is built, the dirt of the cellar is carted away, and, under these circumstances, the position of the resident is a pleasure rather than a task; such we feel it to be, and while we can count as many friends and interested contributors and readers as the last year has assembled around us, however incompetent to the whole scope of its duties, we hope, and intend to be contented and happy in our chair.

BUFFUM PEAR.†

If, in the classification of fruits, we take in consideration not only the quality, but the vigor of the tree, its constant fertility, its fitness to succeed in almost all kinds of soils, and to yield handsome, healthy crops, certainly the Buffum must take a prominent rank in the catalogue of good pears.

As an orchard tree, in a pyramidal, or widely spread shape, perhaps it is unrivalled. As a good bearer, we can safely depend upon its crops. Grafted on the quince, or on the standard, it soon sets to bearing, and those bearing habits keep up with the vigorous development of the tree.

The original tree in Mr. Prescott Hall's fine residence at Newport, Rhode Island, is still vigorous, although not in a well-selected spot, being too close to one of the

* A publisher has even found it to his advantage to devote his energies, and a large establishment, to the publication of books devoted to horticulture and kindred subjects. C. M. Saxton & Co. disseminate, annually, information on the subject, that will compare, in amount, with that of the whole of Europe—not so much in expensive and magnificent publications as in usefulness. The more *recherché* will come in time; the demand for Michaux and Nuttall's costly Sylva is increasing annually; a fact in itself that speaks strongly of progressive study and interest.

† See Frontispiece.

stone walls of Mr. H.'s new building. We horticulturists have to thank that gentleman for the special care he took of the fine parent tree, which continues to yield abundant crops. As a proof of the vigor of the variety, we can state that there are to be found many trees grafted on the pear stock from the scions of the parent, which are now as large, and better filled than the original seedling.

The Buffum pear is middle sized, obovate, tapering a little toward the stem. The skin is dull green, overspread with russet, which color goes over to yellow ochre, and dull brown, occasionally dotted or tinged with red and rich brown, when the fruit is about to ripen. The ripening process is slow, and can be retarded by keeping the fruit in cool places without danger of sudden decay; this is almost always the case with fruit of a firm, heavy texture.

Flesh firm, but melting and juicy, with a very pleasant peculiar flavor, and sweetness enough; a little grit around the core is the only defect, which will perhaps be removed by longer cultivation. In some localities the Buffum grows to a larger size, and we could not find that this artificial increase took away any of its rich qualities, as is so often the case with pears and apples. We can safely recommend the Buffum as an orchard or a garden fruit. It can be barrelled, as the Lawrence, when picked in proper season, and carried to distant markets without injury; the pear, when full grown, but still green, being as firm and as solid as any market fruit ought to be.

BEURRE NANTAIS—BEURRE DE NANTES PEAR.*

One of the very best of the lately imported varieties; this fruit seems fitted to our climate, as it is found as good in Rochester as in Massachusetts and New Jersey. *Fruit*, long, pyriform, sometimes a little obovate, richly colored with green, yellow, and crimson. *Skin*, smooth and glossy. *Stem*, about one inch, and varying, slender, mostly not inserted. *Calyx*, open in a shallow, wide basin. *Flesh*, melting, very juicy, richly flavored, sweet, pleasant, and without any grit or coarseness. Ripens about the beginning of September, and, as all pears of that season, should be picked when grown to its full size, but before the process of ripening commences. We cannot insist too much on the necessity of picking the summer and early fall pears in proper time. Much first-rate fruit is spoiled by being picked too late. With very few exceptions, no pear ought to ripen on the tree. Summer pears soon completely decay when left to ripen on the branches; fall fruit is blown off, or ripens badly, and is more exposed to all kinds of injuries, and winter pears will not improve after the leaves have been attacked by the first fall frosts.

ROOT GRAFTING ROSES.

BY ROBERT MESTON, ASHWOOD, TENN.

Mr. Editor: In the *Horticulturist* (Jan. 7, 1856), you publish a short piece on "Root Grafting Roses," by "an English gardener;" as I have practised this mode of propagating the rose for the past ten years, I forward you a detail of my experience.

I adopted the mode somewhat from necessity, as I could not afford to wait the slow process of buds and cuttings; and, as fruit-trees did so well by root grafting, it occurred to me that roses would do equally so.

The best kinds of roots I have ever used for the purpose, were taken from a

* See Frontispiece.

wild species, very common about Nashville, probably the original prairie rose of the gardens; but any strong growing roots from the strong growing kinds will do; choosing those from a quarter to one inch through, and cutting them in pieces of from four to six inches long. Rub off the thorns on the back of the scion, as far as the bandage will extend, with the back of the knife. Make the cut on the root about two and a half inches long, and the cut on the scion to correspond, using the same process as in apple grafting.

I generally prepared my ground for planting the previous fall or winter, selecting a piece of sod when I could, and trenching it up 18 inches or two feet deep. As early as possible in spring, I lined the ground off into beds five feet wide, and planted the grafted roots one foot apart in the row, and two feet from row to row. Care must be taken to make the plants firm in the ground, leaving one or two eyes only out.

As soon as the buds begin to push, loosen the surface of the soil with a hoe. Pinch out all the flower-buds as they appear, and when they have made shoots six or eight inches long, pinch them back. In the fall, after a growth of only six months, these plants will be from two to five feet high, according to the strength of the variety.

I have more particularly alluded to the remontants, mosses, and hardy garden roses; and these varieties, I am perfectly well satisfied, after years of experience, can be propagated in no way with such ease and rapidity as by this.

The other varieties I have, for the most part, rooted in pots. The Noisettes, I have found, do better than the Tea or Bourbons; in fact, the kinds which produce the stoutest wood do best by root grafting.

I may remark, that when the graft grows, the stock root never suckers; but when the scion dies, the roots nevertheless grow, showing that that variety can be propagated by the roots.

[An excellent practical article.—Ed.]

GRAFTING BY APPROACH.

BY PROFESSOR EDWARD NORTH, HAMILTON COLLEGE, CLINTON, NEW YORK.

More than two hundred methods of grafting are described by the horticultural artists of France, a large share of them being curious rather than useful. Grafting by approach is an operation easily performed, and, in some cases, preferable to any other. Its peculiarity is in the fact, that the scion is not separated from the parent stool until after its union with the stock, or that the stems of two trees are united, while each retains its original roots.

The history of approach grafting may be traced back to a remote antiquity. Those who first practised it, probably followed a hint furnished by nature. In the forest, we sometimes meet with examples of grafting by accidental approach. Two branches crossing each other, are rubbed together by the wind, until the bark is mutually removed at the points of contact. A period of calm weather follows, and the two branches unite. The roots of trees frequently grow together in like manner.

In the process of grafting by approach, the steps to be taken are these: 1. Remove a part of the bark and wood from each of the branches that are to be joined. These wounds should answer to each other in shape and size; should be neatly cut; and should reach through the sap wood, and sometimes even to the pith.

2. The wounded parts should be brought together, so that they shall exactly cover each other, and touch at all points.

3. The united branches are to be kept firmly together by means of ligatures and props.

4. Grafting wax should be applied, to keep out air and moisture.

5. The scion should not be separated from the stool until its union with the stock is complete. This will ordinarily happen at the end of a year. Sometimes, when the parts unite reluctantly, the ligatures should be allowed to remain until the end of a second year.

It is in favor of this kind of grafting that it can be performed in midsummer. The opening of spring is, however, the most propitious time.

In forming live palisades or hedges, grafting by approach is especially useful. Young trees or shrubs with straight and flexible stems, are planted near to each other in rows, and then so bent that they cross each other after the manner of lattice-work. At the points of intersection, wounds are made as above described, and the stems are kept firmly together by means of ligatures and wax. In time, the interstices of this trellis-work will be filled up with small shoots, and the whole will form a living hedge more compact and impenetrable than any other. The most favorable subjects for this kind of grafting are the hornbeam, beech, elm, privet, willow, and their like.

When fruit-trees are to be grafted by the approach method, the subject must be planted beside a stool, or placed near to it in a pot.

In other respects, the process will be similar. At the end of a year, the head of the subject can be cut off just above the point of contact, and the graft just below. The subject is then removed to its permanent place. It is only in rare cases that fruit growers will resort to this troublesome method.

THE UPAS TREE.

BY W. S.

I WAS glad to see in that article, fertile of thought and facts, the visit to Kew Gardens that you had a favorable word for the Upas tree (Antiàris toxicaria). It has had fearful qualities attached to it by some travellers, but these exaggerations have been proved to exist wholly in fancy, and in the love of the marvellous with which travellers were wont to excite the curiosity of their readers. The juice of the Upas is a virulent poison, and, when mixed with the blood, is speedily fatal to animal life. It is a native of Java, where also there is a tract of country, which, owing to a constant emission of carbonic acid gas from its surface, is totally uninhabitable by animals, and even destructive to vegetation. These two independent facts have been united and worked up into a tale of mystery and awe. In the midst of a desert, caused by its own exhalations, and surrounded on all sides by barren hills, a tree was said to grow, stretching wide its branches, and reigning in awful majesty over the devastation it had occasioned. Not only were animals deprived of life by its poisonous effluvia, but for miles around vegetation was destroyed, and the ground covered with the skeletons of its victims. The juice of the tree was gathered for envenoming arrow-heads, and the task of collecting it was assigned to criminals under sentence of death, who were pardoned if they succeeded. By the registers that were kept, it was said that not one in six returned. Two young trees were said to be the only plants of the same kind existing in the locality. This was a fit subject for romance and poetry, consequently we find the following in allusion to those fabulous tales :—

"Where seas of glass, with gay reflections smile,
Round the green coast of Java's palmy isle,
A spacious plain extends its upland scene,
Rocks rise on rocks, and fountains gush between;

Soft zephyrs blow, eternal summers reign,
And showers prolific bless the soil—in vain!
Fierce, in dread silence, on the blasted heath
Fell Upas sits—the hydra-tree of death.
Lo! from one root, the envenomed soil below,
A thousand vegetative serpents grow;
In shining rays the scaly monster spreads
O'er ten square leagues, his far diverging heads;
Or, in one trunk entwists his tangled form,
Looks o'er the clouds, and hisses in the storm.
Steeped in fell poison, as his sharp teeth part,
A thousand tongues in quick vibration dart;
Snatch the proud eagle, tow'ring o'er the heath,
Or pounce the lion as he stalks beneath;
Or strew—as marshalled hosts contend in vain—
With human skeletons the whitened plain.
Chained at his root two scion-demons dwell;
Breathe the faint hiss or try the shriller yell;
Rise fluttering in the air on callow wings,
And aim at insect prey their little stings.
So Time's strong arms, with sweeping scythe, erase
Art's cumbrous works and empires from their base;
While each young hour its sickle fine employs,
And crops the sweet buds of domestic joys."

Of course these poetical fancies have no other foundation than the tales above noticed. The Upas cannot exist in the poisoned valley any more than other plants, but flourishes in the woods among other trees. The fact of its growing harmlessly among other plants in botanical collections under cultivation, is sufficient to dispel all these idle fumes of fancy.

BIOGRAPHIES OF DISTINGUISHED POMOLOGISTS, BOTANISTS, AND GARDENERS.

It is the intention of the editor of this work to prepare, occasionally, short biographies of men who have been distinguished in the walks of Pomology, Botany, Gardening, &c. The number of these will depend upon the material that may be accessible; they will be, perhaps, distributed over a considerable period, but in no instance shall they embrace the names of living individuals.

We have prepared two such: the first is that of William Coxe, the able pomologist, of Burlington, N. J., whom we well remember, and who was connected with the writer by marriage; the second will be the life of J. C. Loudon, the eminent Botanist and writer on Gardens and Gardening; the latter will be accompanied by a handsome portrait. The materials for his life have been supplied by his widow, in a most agreeable form, though on too extensive a scale for this periodical. We have been obliged to omit some unessential particulars of Mr. Loudon's career connected with local matters, but we can promise the reader, when it appears, a vast amount of information in this history of one of the most industrious and indefatigable men that ever lived to adorn a profession. To-day, we present a short sketch of

WILLIAM COXE, THE POMOLOGIST.

William Coxe, Esq., of Burlington, New Jersey, was the pioneer pomologist of America. His work is entitled: "A View of the Cultivation of Fruit-Trees, and the Management of Orchards and Cider, with accurate descriptions of the most estimable varieties of native and foreign apples, pears, peaches, plums, and cherries, cultivated in the Middle States of America—illustrated by cuts of two hundred kinds of fruits of the natural size," was printed in Burlington, and published

by M. Carey & Son, in 1817. It is a work exhibiting study, nice observation, and an amount of practical knowledge highly creditable to the research of the author; it continues to be valued by pomologists, and to be quoted by them with approbation. The author left among his papers considerable additions, the result of his succeeding efforts to promote the cultivation of fruit.

Mr. Coxe was born in Philadelphia, May 3, 1762; his father's name was William, and his mother's was Mary Frances; their names will be recognized by Philadelphians, as belonging to families of the first stations, and having pretensions to be enrolled among the best informed, and most refined circles.

An early grant of the Jerseys was made by the English crown to an ancestor of Mr. Coxe, but was afterwards revoked from an idea that it was too large a gift to be held by a private individual. A large tract given in exchange near the northern lakes was accepted, a part of which has continued in the family until very recently.

He received a most imperfect education. The war, which eventuated in the glorious liberty of our country, in its early stages checked all efforts for private improvement, and few or no good schools were open for the instruction of the youth of the land. At nine years of age, he, with some small assistance from a member of his family, began his efforts to acquire knowledge, and being truly industrious, laid the foundation of a remarkably accurate and extended information; his fondness for reading continued through life. Well do we remember his extensive library in his fine mansion on the "Bank" at Burlington, when, as a little boy, we were assigned the duty of bringing away, or taking home, some book or pamphlet from his ever open stores of information. Years, we will not say how many, have since rolled over us, and all but whitened a head even then prying into gardens and conservatories with pleasurable sensations; we have since stood before kings, and the mighty of the earth, but never have felt greater respect and veneration for them than we did when a boy for WILLIAM COXE. His person was handsome, and his bearing that of the "old-fashioned" gentleman, improved by mixing in the best society, but retaining the forms of the greatest politeness and suavity, that modern usages are too rapidly casting off.

An errand to Mr. Coxe's was a cherished privilege; never was the opportunity neglected by him, to place in the hand of his visitor some fruit that he so well knew would be appreciated by a youthful appetite. The finest Seckel pears we have ever seen were not unfrequent deposits; for this fine fruit he had an especial fondness; and, by careful cultivation, he had brought it to great perfection; it is by the absence of this cultivation that it has depreciated, *and by this alone.*

In 1789, Mr. Coxe married Rachel Smith, a most estimable and benevolent lady, a descendant of the first and honorable settlers of that district of New Jersey, a name that was so well known there, and so numerous, that a fine old French emigré used to say, that when any one spoke to him, in Burlington, whom he did not recognize, he always took off his hat, and said: "How do you do, *Mr. Smith!*" Mr. Coxe, at the time of his marriage, was settled as a merchant in Philadelphia, but being unfortunate in business, he removed to Burlington, where he improved his wife's large property, and materially beautified that pretty little town, now a city, particularly by extending the front of the "Green Bank," and planting it tastefully with fine trees; either the first poplar or the first willow there, his daughter remembers him frequently to have said, was brought in his hand from Halifax, Nova Scotia.

The natural activity of his mind, and his strong desire for improvement, led him to the cultivation of fruit, which he introduced in his collection from all parts of the United States, as well as from England and France. His orchards and his cider

were the talk of the country. So frequent were the demands upon his time for information, and the requests for grafts, that he determined to give the results of his experience in the form of print; the volume now so celebrated, and so scarce, was the result. He previously enlightened his fellow-citizens by furnishing the capital for a nursery business, consigning it to the hands of a partner, Daniel Smith, one of whose lists of trees, for the year 1806, is now before us, and is quite a curiosity in itself.

Mr. Coxe was interested in the profits of the nursery, but formed, perhaps, erroneous views of the demand for that period; the sales never amounted to more than five thousand dollars a year; the half profits on this could have been of little moment to a gentleman then living in the style of the wealthiest people of the period, but it was in the line of his studies so to do, and we all know, that for a favorite hobby we can attempt anything we fancy. The business not being of sufficient moment, it was abandoned to his partner, who continued it for some years with moderate success.

Mr. Coxe was made an honorary member of the Horticultural Society of London, and received, annually, their splendid works, with colored engravings, in consequence of his making known to the members the great value of the Seckel pear, a painting of which, executed by one of the accomplished members of his family, was sent by him through Dr. Hosack to that Institution; but in a few years, he declined this honor, being unwilling to receive their valuable publications for so trifling a contribution.

He was for many years a member of the State Legislature, and afterwards was elected a member of Congress about the time of the last war with England, where he was intimately associated with Daniel Webster, and one of his earliest admirers.

Some unfortunate investments in real estate induced him to consider it prudent to dispose of his beautiful residence in Burlington, and remove to his farm on the borders of the Delaware, near the town, which he improved and cultivated with great interest. The cider made there, much of it from his favorite crab-apple, was sought after from all parts of the country, and made as much noise in the then little American world, as the wine of Ohio does now.

From this period he led a very retired life—devoted to his family and his books, always manifesting a warm interest in the church of which he was a member, and keenly alive to the comfort of the poor families by whom he was surrounded, frequently making sacrifices to give them employment, especially through the winter months.

A sudden and violent cold, terminating in bronchitis, caused his death on the 25th of February, 1831, in the 69th year of his age. He left several children, one of whom, Richard Smith Coxe, has made a considerable figure at the bar, and is a resident of Washington, D. C. One of his daughters is the wife of Bishop McIlvaine, of Ohio.

Such is the bare outline of the life of William Coxe, the pioneer of American pomology, on which it would be useless to enlarge further than to say that his book is a very good one. Much that we moderns plume ourselves upon as new, is old. Even Evelyn, in 1686, said: "Water lately planted trees, and put moist and half-rotten fern, &c., about the foot of their stems, having first cleared them of weeds and a little stirred the earth." This is our modern "mulching" and "stirring." Again, in October, he says: "Trench grounds for orcharding, and the kitchen garden, to lie for a winter mellowing." This is now much insisted on. "Gather winter fruit, that remains, weather dry; take heed of bruising; lay them up clean lest they taint." Evelyn, too, has his select list of pears, as follows: "Messire Jean, Lord-pear, long Bergamot, Warden (to bake), Burnt-cat, Sugar-

pear, Lady-pear, Ice-pear, Dove-pair, Deadmans-pear, Winter bergamot, Bell-pear, &c.;" no doubt great "acquisitions" in their day. His apples, too, were doubtless sought after under the following appellations: "Rousseting, Leather-coat, Winter reed, Chestnut apple, Great-belly, the Go-no-further or Cat's-head," &c. In January, you are to "set your traps for vermin; especially in your nurseries of kernels and stones, and amongst your bulbous roots," and in December, "As in January, continue your hostility against vermin." Perhaps if these good rules were observed now, we should hear less of the depredations of mice.

In short, though Pomology has made immense strides in our day, the more the subject is looked into, the more will it be found that we are often treading in the footsteps of our ancestors. Mr. Coxe's treatise deserves every praise that can be given to it, considering its date, and we are sure the most modern of our fruit-growers may still consult it with advantage, though it has been pretty thoroughly culled by recent authors. Among the advantages they can claim is the description of the best and more modern varieties, with a more thorough knowledge of the best modes of planting, pruning, and cultivation.

DWARF PEARS.

BY WILLIAM BACON, RICHMOND, MASS.

With many it appears to be an unsettled question whether the propagation of pears on the quince is to meet with sufficient success to warrant increasing attention. In settling the matter to our satisfaction, there are several points to be considered before adopting any definite conclusion.

In the first place, we must consider the manner of working the pear upon the stock through which it is to receive its future nourishment. We have noticed that different nurserymen have different ways of doing the thing. In some instances we have seen them inoculated from six to ten inches from the ground, thus leaving a long shank of the quince, whose growth is slow, between the pear wood and the root. Now, we hold that, under judicious management, the quince, whose roots become the base of the tree, will attain to a great age, and so will the pear. But this horrid shank between the root of the former and the place of union with the latter, breaks all connection by its comparative slow growth between their prosperity and the advancement of the one through the nourishment of the other, by not affording sufficient strength to sustain the top which has risen from it, and for a like reason, being unable to give the nourishment the increasing growth of the pear demands. Hence, the pear becomes sickly, a separation at the point of improper union commences, and death follows. Then come bitter denunciations against dwarf trees, and the inexperienced cultivator declares them all a humbug to get money, and abandons their culture.

There is another class of nurserymen, who either understand their business better, or act from more honorable principles. These, inoculate their stock nearer the earth, so that only a little space is left between the root and the new top. Such trees, we are confident, can be so managed as to secure a vigorous growth and a good old age.

In order to secure these objects, the tree should be set so that the whole of the stock, and a part of the scion will be covered with the earth. With some kinds of trees, we are aware this operation would be injurious, if not dangerous, but the habits of the quince, if the soil is favorable, will fully warrant it, as all who have cultivated it must be aware from the freedom with which it takes root from cuttings. This same freedom will be indulged in by the entire wood of the

stock, so that an increase of nourishing power will be given by planting it under ground. And in this manner of proceeding, the collar of the tree, or point where the roots and top are united, will be formed of the more thrifty wood of the pear —perhaps at the point of inoculation, where, in the course of growth, a change of habit will develop itself.

It has been held by some writers, whose experience entitles their opinion to full credit, that when dwarfs are planted out so that a part of the pear is covered by earth, roots will issue from it, which will increase the age and strength of the tree. Our individual experience is yet too limited to speak confidently on the subject, yet we are certain that roots will be so thrown out, and where proper culture is given we can see no satisfactory reason why they will not become healthy, supporting roots. Admitting it to be so, there can be no doubt but pears propagated in this way will attain an ample size, and fruitful old age.

We have alluded to the different course pursued by nurserymen in propagating dwarfs. The evils of failure, however, do not rest altogether on their way of doing things. Cultivators are quite too apt to neglect their labors, and then, in course of failure, throw back the blame on the nurseryman, his manner of growing, or taking up his trees, or almost anything else that will excuse their own negligence. How often we have seen the roots of trees warmed in the sun, dried in the wind for hours before planting out, and then set in holes dug in hard earth hardly large enough to receive them, and then covered with as much haste as though they were infected with smallpox, with the very first material that comes to hand—turf, stone, hard earth—anything that will fill the hole and kill the suffering tree thrown in, while to give it firmness, a half-a-dozen stamps of a heavy man are made on the earth as the closing act of a hasty operation. When will men learn that trees are things of life, and possess, in delicate proportions, the organs of healthy and successful vegetation? Until they do, there is no wonder that their trees, allowed to suffer from management so foreign to their nature and habits, die, and blast the expectations of their murderers.

It is an admitted fact, by those best acquainted with vegetable physiology, we believe, that all care should be taken in planting out trees to give the root as much of the ease and freedom of nature as possible, and that the space unoccupied by the root, not only in juxtaposition, but its surroundings, should be occupied by a soil best adapted to its future nourishment. The hardy trees of the forest, to thrive well, require this, and how much more do fruit-trees. That dwarfs require it in a much greater amount, no one conversant with their growth and habits will deny. Of course, then, the ground they are to occupy should be well prepared before they are placed in it, by a thorough subsoiling or deep and uniform spading, not confined merely to the few feet the tree occupies, but all the space between the trees. Spading is preferable, because it enables the operator to disturb the minutest particle of soil, and what is better yet, to invest it completely, that is, to throw the top soil, well ameliorated by previous culture, to the bottom, and bring earth which has never felt the rays of the sun, to the surface, where atmospheric influence will, in due time, improve and fertilize it.

How *seldom* this thorough preparation of soil is given, we shall not attempt to decide, but where it is given, and proper trees are properly planted, we have not a doubt but the culture of dwarfs may be sufficiently successful to warrant its adoption in every garden.

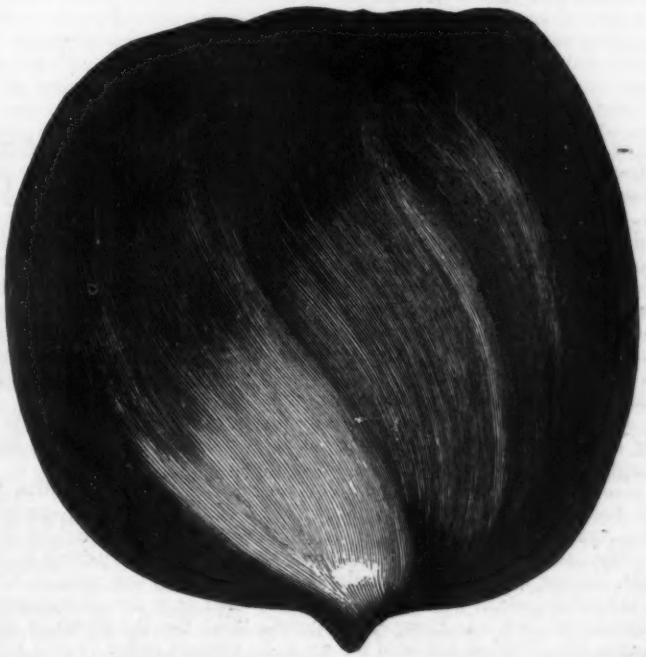
In the midst of diseases to which such trees are liable, we have as yet discovered none but the blight. The trees should be carefully watched to discover its earliest approach, and as soon as it shows itself, the infected part should all be removed with a sharp knife, and grafting wax applied over the wound. We have

tried this in a few cases, and in all of them the disease was stopped, and a sound, healthy bark had entirely covered the wounds in autumn. It requires only just the amount of time which every cultivator ought, for pleasure's sake, to spend among his trees daily, and a little close watchfulness to discover the small black spot in the bark and remove it.

HYBRIDIZING.

BY A. N. WYLIE, CHESTERVILLE, SOUTH CAROLINA.

I HAVE been experimenting, for several years, in hybridizing. I have about fifty trees, some of which have been tested, and the greater number of them will bear this summer; they are chiefly peaches and nectarines. My chief purpose is, to fill up the space between the time of ripening of the heath cling (which ripens here from 10th of Aug. to the 1st of Sept.) and our peaches, which ripen the last of Oct. and 1st of Nov. I have, in late falls, seen soft peaches the 15th of Nov. I am satisfied, that by the process of crossing, we can produce fine varieties, ripening here from the last of May to the 1st of Nov. I will take occasion, this summer, to make drawings, and give a full history of the result of my experiments. Inclosed I send you an exact drawing, as regards size and form, of a peach which was one of the last three remaining on the tree on the 15th of Sept.; it was produced by impregnating the heath cling with a large yellow freestone peach,



PEACH FROM A HEATH CLING AND A YELLOW FREESTONE.

somewhat resembling Crawford's late malocoton. It is a large, heavy freestone peach, seed small, flesh yellow, with rather dark-red skin where exposed to the sun, of excellent flavor, and, I think, will prove quite an acquisition for that season. I have tested two or three very superior varieties, produced by impregnating the heath cling with the Columbia. In all my experiments, I find that, in crossing clingstone and free peaches, the variety produced is always a freestone —proving that the freestone is the original form. Also, in crossing nectarines and peaches, and I produced a number, I have never yet produced a smooth-skinned peach or nectarine; proving what is already known, that the nectarine is merely a sport. I have some Stanwick nectarines which will bear, or, at least, bloom, this spring; it is my intention to cross them with a number of our best and largest varieties of peaches. A few years ago, I sent for the monstrous Pomponne Peach, for the purpose chiefly of crossing it with other peaches, as it was represented to be of great size, but I find it is not true, the blossoms being small. Will you do me the favor to inform me where the true kind is to be procured? My only purpose is to use it as a base for crossing other superior varieties.

I have procured some tubers of the Dioscorea batatas, and have sent for some tubers of the Dioscorea sativa alata, for the purpose of hybridizing, so as to produce a large variety suited to our climate. As I have no work which gives any particular account of the latter varieties, their botanical description, or mode of cultivation, I would take it as quite a favor to give me some information on the subject which may further my object.

PRUNING OF PEAR-TREES.

BY B.

NEW JERSEY.

BARRY, in his *Fruit Garden*, very truly remarks: "*Too many people* imagine that trees can take care of themselves, as trees in the forest, on the ground that nature preserves a balance in all her works; but it should be borne in mind that a fruit-tree is *not exactly a natural production*. It is far removed from the natural state by culture, and, the further it is removed, *the more care it requires*."

Upon this theory is based the whole management of the improved fruit varieties. *Civilized* fruit (as Van Mons used to call the more refined varieties) are the offspring of art and human skill; and, as all artificial, and of course more delicate products do, require artificial treatment. Hence the endless treatises on pruning and training; so many, indeed, that one feels deterred from their perusal by their length and dogmatical appearance. Let us try to compress in a few hints and facts, the main principles of that most important operation.

We confine ourselves to the pear-tree for the present, and chiefly to the pear-tree *of the garden*, which requires a pyramidal or conical shape, and a mode of treatment different from other species of fruit-trees.

In planting a tree in its ultimate site, few persons pay any attention to the *bent* or direction of the tree. This ought to be our first care; for scarcely any tree of a certain size is so straight as not to show a curving or arching disposition. This curve or arch must always be turned towards the southwest to be able to resist, in some measure, that peculiar influence which, in this country, with the ocean in the rear, affects the tree just in the same way as in the old continent with the ocean in our face. In Europe, we generally think that this repulsive influence is owing to the combined action of the sun in its greatest power (2 or 3 o'clock), and the prevailing winds of the Atlantic. Whatever may be the reason, the

same result takes place here with the western *land winds;* and the isolated trees recede *from* that point, body and limbs; the pear and peach-tree more than any others.

This influence is very *marked* on the limbs—always plenty of them on the north and east side; and a deficiency on the southwest side. We have, therefore, to keep the tree as well supplied as possible on that quarter, cut the leading shoot just above a bud pointing to the south or west, and remove what is too abundant on the north or east side.

The best, sturdiest trees, the handsomest pyramids, are those that have been often cut back (recépé), to increase the strength of their basis and to compel them to make "their own wood in their ultimate place;" the French call that "faire bois neuf sur place."

The position of the buds, and consequently of the branches, is beautifully symmetrical and spiral, as if nature intended to give her products the best chances for equilibrium. We must take advantage of it; and, if we do not neglect a tree, symmetry will be the law of its general shape.

Nothing is more irrational than to preserve every branch which the tree brought from the nursery, where there is not leisure enough to make pyramids in the proper time (say two or three years from the bud). It is not advisable to suppress too many stout limbs at once in planting. We have already hinted at the proper mode of removing those branches gradually, without much injury to the tree; but when, afterwards, we have the tree under full control, we must not allow a branch "*to make opposition* (to compete) *with the body*," as Van Mons termed it. He says: whenever such competition takes place, cut the limb, wherever it may be, till equilibrium is restored. Those kind of limbs, when loaded with fruit, split from the main body, and I have seen scores of fine trees destroyed in that way. They are ill-looking things, unmanageable, and do not bear more fruit, on an average, than regular, well-pruned branches would do, with infinitely more safety.

Great is the number of persons who would not cut a limb, nor suppress a fruit-bud. They have no patience, and *must* have the fruit, let the tree afterwards be spoiled! This is not a wise policy. By the time *I* should have my trees *mature*, fitted and able to bear sound fruit on well-disposed branches, *you* will have to go back, and, to *save your tree*, to commence the operation I just finished. The loss of a few fruits on a young tree is nothing compared with an interruption of regular crops in the *proper time* of bearing. Let us first have well-trained students before we have doctors and lawyers. Let your tree shape, educate, and strengthen itself under good management, *while young* and of *small crops*, and afterwards you may safely rely on yearly increasing crops, with full security, and without props, straps, and all kind of odd looking, and disgraceful supports. We planted, and enjoyed the fruits of thousands of trees, and rarely, if ever, had to *support* a tree in an erect and proper position. A pole bound to the tree *rubs* that side, destroys the limbs *there*, and makes bare spots forever. The pruning knife, with a proper dose of patience, is the safest propping and the most satisfactory in its ultimate results.

When a tree is well shaped, and of the required age and size, it will bear its fruit with a symmetry and equipoise truly astonishing; but, to attain that result, the branches ought to be nearly all of proportional size with the size of the main body; more slender and shorter when coming nearer to the top of the pyramid.

For a garden, the best shape is undoubtedly the pyramid, or the conical. We always found the pyramidal form best, the most graceful, and the most easily managed. With some varieties, indeed, it seems almost the only possible form; such are the *St. Michael Archangel, Baronne de Mello, Fondante de Noël, Duc de*

Brabant, &c. &c., which cannot be brought *under* any other form. Another advantage is that, by the pyramidal shape you get the fruit-spurs closer to the main body, with light and air enough to ripen all, and without exposing your fruit to be rocked and swung, stunted and smashed, by the autumnal winds, going the rounds of the compass at every blow; while the "accidental" loss of a branch is comparatively nothing, and easily remedied.

Some varieties, it is true, bear only at the end of their branches, as the *Madeleine, Catillac*, &c.; but when they grow old enough under the pyramidal form, they bear closer, and I have seen pyramids of Catillacs, Franc-réals, and Josephines, just as *full* as any orchard tree could be with its open and distended form.

A great deal has been said about the proper time for pruning. As applied to large orchard trees, the removal of stout limbs can remain *sub judicè*, although we think the spring the best time. We only intend to speak about the regular pruning of moderate, or full-sized pyramids, or, of such trees as have been submitted to some previous treatment. Our long experience has confirmed us in the truth of the old French rule,

"Taille tôt, taille tard,
Rien ne vaut taille de Mars;"

which, translated, sounds as—

"Prune early or late,
No better time than March."

We have different reasons for this. Our first and principal is, that some varieties, chiefly in severe winters, will not bear pruning before winter *or* during cold weather. Secondly, the healing process commences right after the operation, without injury by frost or exposure of wounded limbs. Thirdly, we see the blossom-buds more swollen, and can distinguish those at a glance; and last, but, by no means least, we retard the blossoming and the starting of the vegetation, at least for some days; which, in our uncertain climate, is a matter of no small consideration; for hardy varieties, which can bear the operation before winter (as Lawrence, Sterling, Buffum, &c. &c.), with impunity, come out rapidly in the spring.

If you wish a pear-tree to bear early, to test a new or favorite variety, let the pruning be very moderate. A severe pruning will cause the spurs to go over to *wood* or *shoots* instead of fruit bearers; and the blossom will drop, or set with deficient fruit in consequence of the disturbance of the general economy of the sap. But, we again repeat, if you want sound, handsome, and good bearing trees, "have patience," and do not spoil a valuable colt by driving it, before it is fitted to the harness. Please remember that a pear-tree is not a currant bush, nor a wild peach-tree; which last, by the by, would be all the better also for a systematic pruning.

In pruning young thrifty trees, take off a good part of the terminal shoot. The sap flows with great power to the top, and that part of the tree is much exposed to be overfed, and in consequence, to droop and bend down for want of proportional strength.

These are, in a brief way, the main rules. Everybody knows that in pruning we must avoid *forks*, or too many branches starting from one limb, because if that limb should die, an irremediable void is formed, and because it disturbs and destroys the equilibrium of the tree by calling for too much food. Everybody knows that all good pruning must consist in filling *vacuums*, and thinning out thickly branched parts. That a shoot ought to be cut, clean, just above a bud,

which bud must be on the under, or outside part of the shoot, rarely or never in a vertical position, because it would tend to bring in the construction of the tree more of those vertical or upright shoots, every one of which ought to be carefully cut away, as absorbing, by a natural privilege of its vertical position, all the sap, and destroying the harmony of the tree. It follows that a limb inclined at an angle of 45°, or a lower bend, is more fitted to make spurs, and go over to bearing by the *deprivation* of superabundant sap. *Inclined*, or *down-bent* limbs, of course, make a tree bear, but are so injurious to the growth of the tree that we have seen many of the stoutest pyramids, and most vigorous varieties, give up at once and linger or die, if not immediately submitted to a regular mode of pruning. An angle of 45° is the best direction for the limbs of a pyramid. They make good bearers, without injuring the health and vigor of the tree.

I fear, Mr. Editor, that my remarks have taken more room than I intended to give them, and still there is so much more to be said; but I hope that some may be induced to let trees be *trees*, instead of bushes, and wait a little longer for better and more fruit, by a rational treatment of that invaluable ornament of our gardens and desserts.

THE OLD TOPIARY WORK.

OLD-FASHIONED gardening embraced a great amount of topiary work, or trimming shrubbery into figures, without which the grounds adjoining the house were considered incomplete. This continued till the time of Addison and Pope, whose better taste attempted a reform.

AN OLD CLIPPED YEW-TREE.

We introduce a specimen from Elvaston Castle. It is an old clipped Yew, forming an arbor 14 feet square, and 18 feet high. It was moved twenty-five miles many years ago, and is supposed to be upwards of one hundred years old. It is one tree, the stem running up the centre, and is perhaps one of the best examples of the topiary treatment extant.

Though some might object to the figures on the top, a bush or tree, in this manner, so as to form a bower, or shelter, is not improper; it is allowable to make utility the subject of ornament, a rule founded in nature and reason; few objects are more interesting than an arbor made by training the limbs of a weeping ash, grafted high up, or trimming a yew into a useful shape. Box-trees and bushes are sometimes thus treated, to the great amusement of young persons.

Fantastic topiary work may be said to have been killed by Pope, who wrote the following satirical article in the *Guardian*, No. 173. Our readers will pardon the space it occupies for its information and humor. After describing the Garden of Alcinous from Homer's *Odyssey*, he goes on:—

"How contrary to this simplicity is the modern practice of gardening! We seem to make it our study to recede from nature, not only in the various tonsure of greens into the most regular and formal shapes, but even in monstrous attempts beyond the reach of the art itself. We run into sculpture, and are yet better pleased to have our trees in the most awkward figures of men and animals, than in the most regular of their own.

'Here interwoven branches form a wall,
And from the living fence green turrets rise;
There ships of myrtle sail in seas of box;
A green encampment yonder meets the eye,
And loaded citrons bearing shields and spears.'

I believe it is no wrong observation, that persons of genius, and those who are most capable of art, are always most fond of nature; as such are chiefly sensible, that all art consists in the imitation and study of nature. On the contrary, people of the common level of understanding are principally delighted with the little niceties and fantastical operations of art, and constantly think that finest which is least natural. A citizen is no sooner proprietor of a couple of yews, but he entertains thoughts of erecting them into giants, like those of Guild-Hall. I know an eminent cook, who beautified his country-seat with a coronation dinner in greens; where you see the champion flourishing on horseback at one end of the table, and the queen, in perpetual youth, at the other.

For the benefit of all my loving countrymen of this curious taste, I shall here publish a catalogue of greens to be disposed of by an eminent town gardener, who has lately applied to me upon this head. He represents, that for the advancement of a politer sort of ornament in the villas and gardens adjacent to this great city, and, in order to distinguish those places from the mere barbarous countries of gross nature, the world stands much in need of a virtuoso gardener who has a turn to sculpture, and is thereby capable of improving upon the ancients of his profession in the imagery of evergreens. My correspondent is arrived to such perfection, that he cuts family pieces of men, women, or children. Any ladies that please, may have their own effigies in myrtle, or their husbands in horn-beam. He is a puritan wag, and never fails when he shows his garden, to repeat that passage in the Psalms: 'Thy wife shall be as the fruitful vine, and thy children as olive branches round thy table.' I shall proceed to his catalogue, as he sent it for my recommendation.

'Adam and Eve in yew; Adam a little shattered by the fall of the tree of knowledge in the great storm; Eve and the serpent very flourishing.

'The tower of Babel not yet finished.

'St. George in box; his arm scarce long enough, but will be in condition to stick the dragon by next April.

'A green dragon of the same, with a tail of ground-ivy for the present.

'N.B. These two not to be sold separately.

'Edward, the Black Prince, in cypress.

'A laurestine bear in blossom, with a juniper hunter in berries.

'A pair of giants, stunted, to be sold cheap.

'A Queen Elizabeth in phylyræa, a little inclining to the green sickness, but of full growth.

'Another Queen Elizabeth in myrtle, which was very forward, but was injured by being too near a savine.

'An old maid of honor in wormwood.

'A topping Ben Jonson in laurel.

'Divers eminent modern poets in bays, somewhat blighted, to be disposed of, a pennyworth.

'A quickset hog shot up into a porcupine, by its being forgot a week in rainy weather.

'A lavender pig, with sage growing in his belly.

'Noah's ark in holly, standing on the mount; the ribs a little damaged for want of water.'"

Lord Bacon, in the forty-sixth of his essays, describes what he calls *the platform of a princely garden*, which is very superior to the description which Sir William Temple has given in his essay, entitled *The Gardens of Epicurus*, written in a subsequent age. This is alluded to by Mason, in his English Garden, thus:—

"Yes, sagest Verulam,
'Twas thine to banish from the royal groves
Each childish vanity of crisped knot
And sculptur'd foliage; to the lawn restore
Its ample space, and bid it feast the sight
With verdure pure, unbroken, unabridg'd:
For verdure soothes the eye, as roseate sweets
The smell, or music's melting strains the ear."

CRITIQUE ON THE MAY HORTICULTURIST.

Evergreens, and other Matters.—Evergreens are picturesque in many grounds—beautiful, too, when both soil and climate suit them. Otherwise, they had better be let alone. A foxy looking Evergreen, studded with bare spines, striking out like "quills upon the fretful porcupine," is anything but agreeable to the eye or taste of one who loves luxuriant vegetation in trees. The great difficulty which I have observed with Evergreens in park or lawn culture is, that they are stowed in promiscuously and thickly among the deciduous trees, and, after a few years of fine conical growth, they become crowded, the lower branches fade and die, and their entire beauty is lost in bare poles, with frizzled tufts of spiny leaves at the tops, a burlesque only upon the noble family of which they should be honored specimens. If you affect Evergreens at all, give them abundant breadth of space; then let them have their entire will of sweep, and range, and spray, and they become striking objects of admiration and beauty. My heart has been so often saddened by seeing the poor crippled things stuck into a crowded door-yard, or back passage, and then barbarously clipped into some grotesque imitation of nothing which a tree should be, that I have wished for the moment they were out

of sight and existence. I have serious doubts, after all our trials of exotic Evergreens, whether our own grand and stately pines, and hemlocks, and spruces, and cedars, are not the best, as well as the most effective, for all ordinary purposes, that we can cultivate.

You have so well handled "other matters," Mr. Editor, that I have not a word to say about them.

Dr. John Lindley.—A self-satisfied gentleman, as the picture shows him. I wonder how he'd look if he should discover a *bug* on the other side of the leaf he is so quietly admiring! A great man in his way, Mr. Lindley! and, like most other men of genius, possessing peculiarities which he would be quite as well without. That he should speak lightly of America, as you observe on page 240, is not remarkable, for these one-idea people are apt to fancy, that a subject of which they know little is hardly worth investigation. A man, no matter how high his pretensions or attainments in science, who looks contemptuously on a country like ours, is quite apt to be a flatterer of the rich or great at home. Instance the great lexicographer, Johnson, who, while sneering at Scotland and its profoundest men, poured out his humblest adulations to the wife, successively, of a wealthy London brewer, and an Italian musician.

The White Grape Currant.—A good fruit, no doubt; but, in the long run, scarce equal to the White Dutch, under the best cultivation. This latter fruit, in its long bunch, fine size, transparent berry, and delicacy of flavor, coupled with its exceeding hardiness, stands yet without a rival, as a housekeeping currant, among the white ones. By the way, why is it that *almost* everybody stows away these excellent, useful fruits thickly under their fences, where they can get scarcely any sun or flavor, when by planting them in open grounds, six feet apart, and giving them good cultivation, they are among the choicest fruits of the season, and, in eating for six or eight weeks?

Remedy for Girdled Fruit-Trees.—"The sovereign'st thing on earth was parmaceti, for an inward bruise." I never knew a disease, from the *itch* to the *cholera*—from the measles to the consumption, for which somebody could not prescribe a *certain* remedy. You may save the girdled tree, by following the prescription of Mr. Lumm, for a few years; but where the bark is eaten clean off, the trunk will decay, and leave a deformed, defective body. Better at once root it out, if you want a *permanent* tree, than attempt to patch a thing that is destined, under ordinary circumstances, to outlive both you and your family. I have tried all these nostrums with mice-bitten trees, when the girdling has been *thorough*, and know them, for all *efficient* purposes, to be a temporary benefit. If a strip of *living* bark is left, or only the *outer* skin be eaten off, binding up the tree with cloth, or the application of a salve, will restore it in time, as the sap, through even a hair's-breadth of continuous bark will do wonders; but, as a rule, *cleanly* girdled trees are not worth the trouble of nursing.

Climatology.—A good paper. There is a great deal in the subject of acclimating vegetables from their native climate into a colder or warmer one. Many years ago, the sweet potatoe was not grown north of Virginia. Now, abundance of the finest are raised in Jersey, Long Island, and some even in Connecticut, and, they say, in Western New York. So with the sugar-cane. It is now grown two degrees further north in Louisiana than fifty years ago, and equally good in quality. This subject will bear any amount of study, and experiment with profit.

Pear Culture, No. 3.—I hope Dr. Ward is not done with the subject; when he has, I have a word or two to say. Till then, I *now* say, *en passant*, he is perfectly right. The cat will come out of the bag, in this dwarf pear business, after awhile. The nurserymen have had a capital run of them for years past, and not a small

one out of me, for a moderate man. I wish we *orchard* pear growers, not nurserymen, could have a "protracted meeting," and opportunity to "tell our individual experience;" I *guess* we'd have a sympathizing time of it, and that without declaring a "dividend" in the way of profits!

Notes on the Cultivation of the Apricot.—Just one of those revelations of *fact* that illustrate what strange, capricious subjects these light-skinned stone fruits are. The Hudson Valley proper, with a few miles up its tributaries, between Poughkeepsie and Sandy Hill, is the only existing *natural* plum and apricot region I know. These fruits usually grow successfully in that section of country. What the cause, is yet to be shown; climate, soil, and *something else*, all three put together, probably. In many other places, to my certain knowledge, with all the care and pains-taking recommended by Mr. Tompkins, a dead failure has resulted in these fruits. Still, I would by no means dissuade any one wishing to cultivate them from trying every possible experiment.

A Third Winter on the New Evergreens.—Mr. Sargent is entitled to the appellation of a public benefactor to Evergreen admirers. With a position to give them a thorough trial, and a determination to mark their individual progress and success, or the want of it, he is *reliable* authority on the subject for all localities of 40½° and upwards, north latitude.

Gutta Percha.—A wonderful plant; and made into as many uses as the elephant makes of his trunk. But you don't enumerate all of them. I am told that even *consciences* are made of it. Is that usual?

Gossip.—I like this. Half the mental pleasure of this hum-drum world is drawn in from the colloquial interchange of ideas commonly called "gossip." There are as many varieties of gossip extant in the different ranks of humanity as Mrs. Opie enumerates there to be of "lying." There is *low* gossip, and *scandalous* gossip, and "gossip about town." Then there is gossip of the "upper ten"—all these don't amount to much. And then there is the gossip of literary, professional, and political coteries, over their after-dinner wines—rare, rich, and racy, according to the calibre of the brains concerned in it. And, last of all, is the "gossip" of the *Horticulturist!* Very capital in its way, too, Mr. Editor—full of information and suggestion. But I wish you would *split it up* a little; that is to say, divide it into paragraphs. You drive it into such continuous density of type, that one scarcely knows when to pause and take breath. Do give us a page or two each number, and so subdivide the different heads of it that we can take in one idea at a time, for my old head is so obtuse, that so many different topics makes it all of a jumble before I get through with it.*

The Lawton Blackberry.—"They say" that Mr. Lawton has no business to give his name to a blackberry which *another man* discovered *growing wild* in New Rochelle, and the growers thereof—the aforesaid Mr. Lawton excepted—prefer to call it the "New Rochelle Blackberry." If half the stories related of this wonderful fruit are true—and, from the characters of those who tell them, I cannot doubt—it should be in everybody's garden. I am trying the thing in a small way myself; but the fruit is yet in *futuro*.

The New York Horticultural Review.—So, "out brief candle," is added to this,

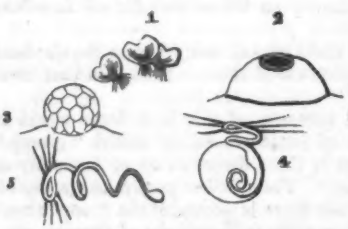
* The object we had in view in *not splitting it up*, was to pack away a large amount of suggestions in a small space, for Jeffreys and others. We have a strong suspicion that our valued correspondent is joking, as he sometimes does; but just as we are finishing this paragraph, we are setting off to see after our friends in his direction, and shall endeavor to prescribe for his head, and teach him to mind our stops, read the matter slowly, say a paragraph every hour or two, and make notes of what is memorable; so that the tangle or *jumble* he gets into may be avoided in his future dips into our "gossip."—Ed.

as to sundry other serials which annually expire, embracing quite as popular, but much less valuable topics. I regretted to see that magazine started, as with yours and Hovey's *Magazine*, already in extensive circulation, I felt assured it could not pay. You, Mr. Editor, have given the plain reasons why another elaborate horticultural publication cannot be supported *now* in America. We are yet young, in the business of refined cultivation, in pretty much everything. We are learning slowly, though surely, and when the *Horticulturist* has ten or twenty thousand subscribers, it may do to talk about another magazine of the kind some hundreds of miles west or south, or north of you. Meantime, your paper will do; and if it had three contributors where it now has one, it would be all the better, for then would there be a chance for *my* gossiping to be crowded out, to its readers' profit, I presume.

JEFFREYS.

FAMILIAR BOTANY.—HAVE FERNS SEXES?

OUR fathers believed that when a fern produced its seed, the little brown grains at the back of a fern-leaf were all that nature had provided for the purpose. Linnæus thought so, and so did everybody else till a quick-eyed Polish gentleman, Count Leszezye-Suminski, found out the mistake. I will not ask you to pronounce both the noble naturalist's names, for letters arranged like these are unfamiliar to our English mouths; but it is proper that so great a discoverer should enjoy such immortality as the *Gardeners' Chronicle* can confer. This great event happened in the year 1848, when it was made known to His most gracious Majesty King Frederick William IV. of Prussia.



The reason, or at least one of the reasons, why nobody saw before what Count Suminski saw in 1848, was that nobody began at the beginning when they studied the nature of ferns. It is indeed to be doubted whether many people, even in this enlightened age, know what the beginning is. Let me endeavor to make this clearer.

If you look upon the damp ground where ferns shed their seeds, you may find it covered with tiny green scales not very unlike the spots called hearts in a pack of cards, only with a few hairs for roots, sprouting from near the pointed end (see Fig. 1). The easiest place to find them in, is the surface of a garden pot or of an old wall, in a damp and shaded fernery. There they lie flat upon the ground, looking like infant liverworts. They are the beginnings of ferns, as you will presently see.

Lift carefully one of these bodies and place it under a microscope (one of Smith and Beck's educationals will do), the underside upwards; you will find that it is a little convex, and on the convexity stand a few very small projections looking like blisters, but of two sorts. One sort has a hole in the end (Fig. 2), the other is something like a netted ball (Fig. 3). They have received various names; let us call the first a *pistillid*, the second an *antherid*.

Here we have what are now styled the sexes of ferns. The pistillid is the lady, the antherid is the gentleman; strange ladies and gentlemen it must be confessed.

Mrs. Pistillid is only a nest, with a little egg hidden at the bottom. Mr. Antherid is a sort of pimple. You may see the egg by looking into the nest; but when you cast your eyes upon the pimple you will probably see nothing except a netted surface. But if you squeeze it, out come little transparent bags, in each of which is rolled up spirally a sort of vegetable worm. In time, the worm uncoils, gets out of his bag and shows himself. In Fig. 4 he is seen half extricated; Fig. 5 you have him wriggling about. And a very surprising fellow he is with a tail like a corkscrew, and a head furnished with a bristly beard.

When the worm aforesaid sets out upon his travels, he moves over the surface of the fern-scale in search of a nest (pistillid), and when he finds one he gets in if he can; at least so says Count Suminski. That feat being accomplished, a wondrous change takes place. The egg grows up into a perfect fern-leaf; at the same time the green beginning shrivels and disappears. When a start has once been made, the leaf becomes longer and longer, and broader and broader, another leaf unfolds from its bosom, in its turn to give birth to more, till at last all are old enough to bear brown grains upon their back or edge. And then the destiny of the fern is accomplished.

It is out of one of these grains that the seed falls, which sprouts into new beginning such as I have first described (Fig. 1).

Is all this really true? A good deal of it certainly is. Acute observers, since Suminski's time, have so far verified his statements that no doubt exists about the antherids, and the pistillids, and the crawling vegetable worms, and the uprising of a perfect fern-leaf from the nest-like pistillid. Such things are, however, extremely difficult to see, and can only be witnessed by well-trained eyes, armed with well-made achromatic microscopes, in the hands of dexterous observers. They must be taken on trust, as are mountains in the moon, by those who have no telescopes. What is really doubtful is, whether the worm crawls into the nest, and how it gets there. Men, however, have come to believe in the phenomenon; and we cannot contradict them, for it is hard to prove a negative.

And these are what are now called the sexes of ferns.—R. E., *in Gardeners' Chronicle.*

AN OCTAGON HOUSE.

MR. EDITOR.—DEAR SIR: Can you give me any information in regard to an octagon cottage or villa? Have you ever seen one? How does it answer the expectations of the occupant? And where is it? are three questions I would much like to have answered. In Vol. 4, p. 516, May, 1850, of the *Horticulturist*, I find a plan that seems to combine almost everything that taste and convenience can desire; and to such a degree, that I am perplexed to understand why houses of this kind are not common with us. Is there some difficulty not apparent in the plan? And will any one let us into the secret? I have heard the remark, "that no man who builds one octagon house will ever build another," but the reason of it I cannot learn.

Respectfully yours,

M. P., *Sing Sing, N. Y.*

Our correspondent wishes us to give him some light upon the subject of octagon houses, and the reason for the remark, that "no one who has built an octagon house will ever build another." The objections to this description of house are three: 1. The poor architectural appearance. 2. The inconvenience of the "conveniences." 3. That the superior cheapness of this description of house is not so great as it has been made out to be. Mr. Page, the author of the plan which will be found in the May (1850) number of this magazine, has, however, in

dealing with this form of house, made the best that can possibly, we think, be made of it. He has shown great taste and knowledge of the "agremens" coveted by an American family of average wealth, and, if possible, greater ingenuity in packing these within the smallest possible compass; and the rustic Italian forms into which he has cast the exterior, are the most suitable which could have been selected, making, out of the ungraceful general outline imposed upon him by the plan, quite a tolerable picture. Imagine, however, that octangular prism, a magnified copy of the little wooden parallelopipeds used in teaching children solid geometry, dropped into the middle of any sweet, natural landscape, with its careless graces, and flowing lines of river, mountain, and tree. Would not the very trees, with their grand and lovely irregularity of spray and mass, seem to stare upon it and laugh with all their leaves at it! One would think no one retired from business, and with an eye to economy, would wish to build such a copy of a pill-box, or, rather, of an eight-sided bottle, which Mr. Page's observatory (a great convenience internally, and rather an improvement to the appearance) supplies with the appropriate stopper!

The pyramid harmonizes with the dead level of the Egyptian sands, or of the plain of Waterloo, but even this, the most pleasing of simple geometric forms, would seem ill at ease on an American hillside, and much more so the octangular prism. The only way to soften the abrupt perpendicularity of this form, and carry its lines gradually into those of the landscape, would be to throw out (as Palladio has done in the Villa di Capri, which is of this form), on four of the eight sides a portico (or other *wing*), of about a story and three-quarters in height, and carry them down to the ground lines by flights of steps; but then, this would destroy the only beauty of the plan, its cheapness! Another difficulty of the appearance is, that chimney-tops, an ornament to any other building, become a terrible thing in this, as the draftsman has not failed to perceive, but has judiciously shaded them dark, and put a dark tree behind each, so that they are hardly noticeable. As to the second part, the conveniences, they are certainly many and good in Mr. Page's plans, but the mistake is in supposing that these conveniences, obtained, as they are, at a less cost than in the square plan, are yet equal, in every respect, to those obtained in that plan. It will be found to be a great mistake to expect the same accommodation in a 15 by 19.8 room, with the corners cut off, as in one finished square. The furniture is comparatively crowded in such a room. Imagine, for instance, a lady at the piano in the "sitting-room;" her position will be thrown much further from the long partition, and more toward the middle of the room, than if the piano were placed in the corner of a square-room of that size. The same crowding will take place in the chambers, in which, by the way, all the beds are drawn too small by one-third at least. Again, the glass "vestibule" is thrown out of the side of the house as a porch would be in a square house, but, though outside of the building, it is not a porch, and if a porch were wanted, one would have to be built extra. It is not even a "vestibule" proper, being the only space between the parlor door and outer air. This is to be considered in estimating the alleged superior cheapness of this over the square plan. Look, again, at the "boudoir." This appears to have what would be in a square house, a bay window, outside of, and extra to the size of the room. Here it constitutes half the room, which is thus half outside the octagon. A defect in this mode of planning is placing the kitchen so near the living-rooms. This could be obviated just as in a square house, by making a back-building, but then this would darken one side of the octagon, besides destroying its symmetry, its only pretension to beauty being that, as Mr. Page says, it looks equally well (?) on all sides. Then, when we look at the pitiful narrow passages, the multiplicity of corners (each of which,

as every mechanic knows, increases the expense), the skew angles, and the cutting of joists and rafters necessary for the octagon, we shall find the supposed cheapness gradually melting away, and be convinced that he who buys a small saving at the expense of such a hot, crowded, and eccentric house, will be decidedly "sold" in the bargain.

In a square house of the same length and breadth, and similar accommodation, all the rooms are larger and more convenient. Of course, a square house, with rooms no larger than those of the octagon, would be less than it in length and breadth, and, consequently, as cheap, or cheaper.

DESIGNS FOR IMPROVING COUNTRY RESIDENCES.

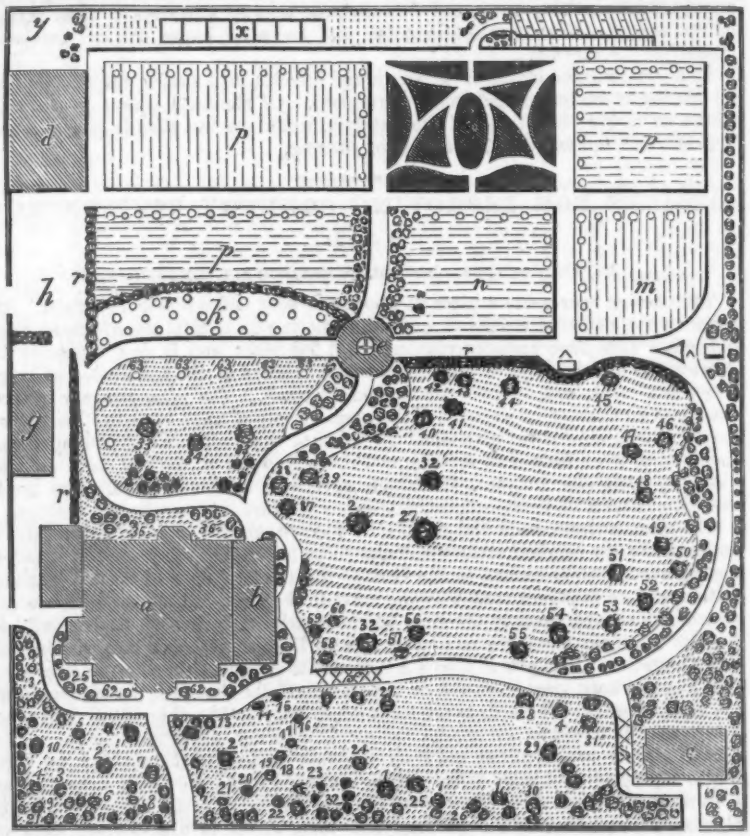
No. 2.

BY WM. SAUNDERS, LANDSCAPE GARDENER, GERMANTOWN, PA.

THIS design represents a place of about one acre and a fourth in extent. Its square form excludes variety of outline, rendering its tasteful improvement more difficult. This place has been planted about five years, and is now beginning to develop the judiciousness of its arrangements. Many of the trees being of large size when transplanted, have now a decided effect. The arrangements possess considerable interest, on account of the great variety of trees, both fruit and ornamental, the agreeable yet diversified direction of the walks, the skilful introduction of evergreen hedges as screens, and the occasional breadth of lawn seen in vistas at particular points. The single specimens of choice ornamental trees, also form objects of much interest, placed, as they are, in conspicuous positions.

The front entrance-walk had to take its present outline to avoid cutting down an old tree; the original surface had also to be lowered at this point; a rounded mound was therefore formed at the base of the tree, creating at once a pleasing feature, and an apparent reason for the curve in the walk. A similar reason occasioned the abrupt bend in the walk at the southeast corner of the veranda, *b*. Both of these old trees are now covered with English ivy, and thus rendered of double interest. The grape arbors are placed to intercept the view on entering; the principal lawn view is, therefore, not seen until the best position is reached at the veranda step. The hedges are ingeniously introduced; they are of American arbor vitæ, the best of all plants for quick growing, evergreen hedges. The offices, *g*, are very completely hid from the walk leading to the stable; the yard is also separated by a thick hedge, which is carried round the dwarf pear-trees at *k*, to the rustic house, *e*. The view to the east, from the rustic summer-house, is pleasingly terminated by the pedestal and vase, *v*, set in a projecting mass of shrubbery; the triangular bed of choice low-growing shrubs in front, also assists in rendering the boundary line indistinct at this point. A similar feature is seen when looking up the walk, standing at a point immediately in front of the greenhouse. The position of the greenhouse and flower-garden might be objected to, abridging, as it does, the vegetable ground. Had the greenhouse been placed on the spot of ground occupied by the dwarf pears at *k*, and the flower garden in front of it, the vegetable ground would have been enlarged, and the whole arrangement more distinct and compact. Such an arrangement was at one time contemplated, but was set aside for the present one, first, because that part of the grounds was too much shaded by the house to admit of that freedom of flowering so necessary in a well-kept flower garden; but, chiefly, on account of the superior beauty of a well-kept lawn in winter, instead of the neglected appearance that flower gardens usually present at that season. In walking through the grounds, the

contrast between the vegetable and flower ground is scarcely observed—at all events, it does not appear intrusive. The transition from the lawn through the



rustic house to the greenhouse, is rendered appropriate by the masses of flowering shrubbery through which it is carried, and the row of fruit-trees on the left breaks the view in that direction. It will be observed that the trees in the vegetable ground are placed principally on the south side of the walks. This is a very judicious method, as it throws the shade of them on the walk, and being kept dwarf, they do not interfere with the growth of the vegetables. Other arrangements and details are further explained by the following :—

REFERENCES TO PLAN.

a. Mansion house. *b*. Veranda. *c*. Gardener's cottage. *d*. Carriage house and stable. *e*. Rustic summer-house, overrun with grapes, and the posts with ivy. *f*. Grape arbors. *g*. Offices. *h*. Stable yard. *k*. Dwarf pears. *m*. Raspberries. *n*. Strawberries. *o*. Greenhouse. *p*. Vegetable quarters. *r*. Arbor vitæ hedges. *s*. Flower garden. *v v*. Vases. *x*. Frames. *y*. Manure heap. 1. Norway firs. 2. European silver firs. 3. Araucaria

imbricata. 4. Purple beech. 5. Gordonia pubescens. 6. Double flowering horse-chestnut. 7. English hollies—vars. 8. Black ash. 9. English laurel bay. 10. Scarlet hawthorn. 11. Cotoneaster macrophylla. 12. Aucuba Japonica. 13. Tree box. 14. Irish yew. 15. Sugar maple. 16. Magnolia obovata. 17. Magnolia Soulangiana. 18. Magnolia longifolia. 19. Magnolia purpurea. 20. Magnolia cordata. 21. Magnolia conspicua. 22. Magnolia macrophylla. 23. Magnolia tripetela. 24. Magnolia auriculata. 25. Magnolia grandiflora. 26. Magnolia glauca. 27. Deodar cedar. 28. Virgilea lutea. 29. European larch. 30. Laburnum. 31. Flowering ash. 32. Hemlock spruce. 33. Cedar of Lebanon. 34. Weeping beech. 35. Rhododendrons. 36. Kalmia latifolia. 37. Weigelia rosea. 38. Spirea Reevsii. 39. Mist bush. 40. White birch. 41. Sweet gum. 42. Mespilus pyracantha. 43. Kolreuteria paniculata. 44. Salisburia adiantifolia. 45. Sophora Japonica pendula. 46. Halesia tetraptera. 47. Pinus Austriaca. 48. Pinus ponderosa. 49. Maclura aurantiaca. 50. Black English mulberry. 51. Pinus pinea. 52. Alnus glutinosa. 53. Judas tree. 54. Cryptomeria Japonica. 55. Yucca gloriosa. 56. English yew. 57. Cupressus funebris. 58. Mahonia aquifolia. 59. Prinos glabra. 60. Siberian crab apple. 61. Filberts. 62. Euonymus latifolia—var. 63. Cherries.

In so small a space as the engraving gives us, it was impossible to embody all the references necessary to catalogue all the trees and plants collected in this garden, which presents a great variety of rare evergreens, and over 200 fruit-trees of the choicest kinds. The whole is an example of what may be accomplished on a small piece of ground, and is given for the encouragement of others.

DOINGS IN CALIFORNIA.

All accounts agree in ascribing a most genial horticultural climate to the settled portions of California. A correspondent, dating from San Jose, May 3, 1856, says:—

"Having made this valley my permanent place of residence, about eighteen months since I built me a small house, in order to surround myself with some of the comforts and pleasures of a home. As soon as it was finished, I began, for the first time in my life, to turn my attention, in a moderate way, to the cultivation of such fruits and flowers as I thought would add most to the enjoyment of myself and family. To my surprise, I found myself utterly ignorant of the first principles and knowledge necessary to guide me in such matters.

The first, and I can say the best books, were Downing's and Barry's, of those to which my attention was directed. With their aid, I did the best I could, the first year.

Recently, a friend loaned me some books to read, and among them, all the numbers of the Horticulturist for a year past.

Here was what I wanted—something that would combine good practical fruit-culture with that of plants, shrubs, and flowers. I immediately subscribed for it, through Mr. Daniels, your agent here, and set about getting others to do so; and, to induce them, have given them all the benefit of the club prices. With this, I send you a list of twenty-two names, and a check for the amount of their subscriptions. I shall increase the number of names, with more time. I have not got up the names for any premium, but rather because of the pleasure it afforded me to help along the good book, as much as my leisure permitted me. Among articles that are very rare, and hard to be obtained in this country, are Hyacinth bulbs, Amarillis do., Rhododendron seed, Azalea, Cineraria, Geraniums, choice kinds mixed, Delphinum, Viola Odorata, Auricula, Anemone, Polyanthus, Ranunculus, Pansy, &c.

We have a horticultural society in this place, and it is rapidly increasing in members and usefulness. I am yours, very respectfully,

ELLIOT REED."

Mr. Reed is now one of our parish. The *California Farmer* gives a glowing description of San Jose and its gardens, which are irrigated from artesian wells, occasioning a moisture in the atmosphere, highly useful to vegetation. The Stockton Ranch, under the care of W. F. Kennedy, Esq., is called one of the most beautiful spots in the State; L. Prevost's is highly spoken of, and A. Delmas has one adjoining, of great interest. In the latter much attention is given to the grape, which seems perfectly at home in California. Mr. D. exhibited a vine in a pot, the growth of a graft brought from France the same year, and inserted upon a native stock, bearing 29 bunches.

The orchards in the neighborhood of San Jose are said to be very superior. Mr. John McMurtrie has one in high cultivation, of 3200 apple trees; he allows no other crop to grow with the trees, and employs a cultivator that moves the earth 12 inches deep; the soil is kept moving "by running the cultivator both ways." A frost sufficient to cut down the tender vegetation, in exposed situations, on the 27th of April, when strawberries were ripe.* The editor, however, says—"There is nothing like a visit to Smith's Strawberry Gardens, to make a person forget trouble."

In another number, the *Farmer* speaks of the Mission Orchard, at San Jose; and chronicles an apricot-tree whose crop, the present year, is worth $200. "Among the large pear-trees, were several that did not produce fruit equal to others, or in so large quantities. These the proprietor caused to be headed down, and grafted with the choice varieties, such as the Bartlett, Seckel, St. Michael, &c., and the growth of these grafts is most remarkable; many of them will be in full bearing the present year, this being but the second year, and the grafts are, many of them, four, five, and six feet long, and very vigorous.

The editor copies, at full length, our "Day at Kew Garden," and says:—

"We give the sketch, by the editor of the *Horticulturist*, of his visit to the Kew Gardens, London; and to his fine description of this gorgeous place we are indebted for a great pleasure, for it brought back to our own minds again, the visit we paid to these wonderful specimens of Flora and Pomona. One exquisite plant. named by the sketcher, the Anœctochilus setaceus—the King Plant of the Cingalese, so highly spoken of—we remember with deep pleasure, for we brought one of these exquisite plants (a very small one, of only two leaves, and the only one for sale, for which we paid a guinea) from the Belgian Gardens across to London, thence to the steamer at Liverpool, by hand, and thence in our state-room to Boston. We remember how we nursed it, as the heart nurses a treasure; and we remember the sensations of joy experienced when we placed it in our home, in all its beauty and glory—*that* feeling can only be enjoyed *by a few*—they must *love a flower* as the loving heart loves its *own treasured flower*, and our own joy was twin to that experienced when such a heart has borne 'home' *that* treasure, and calls it ALL ITS OWN. We know few of our readers can hardly realize or conceive the beauty of such a place. We have often revelled in this and other 'homes of the beautiful,' and we look forward in faith when, upon these bright shores, the glorious science of horticulture, advancing with giant strides, shall rear a Temple of Fame that shall outshine even the Kew Gardens of London, the *Jardin des Plantes* of Paris, or the *Jardin des Belgic* at Ghent; for, when our legislators shall regard the true wealth of California, and labor to develop her real and true interests—then will she quickly be what God and nature designed—The Garden of the World."

* We chronicle *ice* around Philadelphia, on the 30th of May.

EDITOR'S TABLE.

THE HORTICULTURIST.—We have thrown together a few thoughts in the opening article of this month, which were called forth by the period of ten years which have elapsed since the commencement of this work. At the close of 1852, when it passed into the hands of Mr. Barry, its publisher, Luther Tucker, Esq., truly remarked:—

"The *Horticulturist* was a pioneer work, and has held its ground almost without competition. It has formed a taste for the scientific pursuit of horticulture in all its branches, and has exerted no inconsiderable influence in placing the arts of taste upon a new basis. The design of the journal has proved to be one of those happy thoughts which come only now and then, and lead one to wonder why it had not occurred before—a thought which, though new, strikes forcibly upon public sentiment, and soon becomes as common property, as though it never had an originator. The extent to which the editorials in the *Horticulturist* have been copied, and the high eulogiums that have been passed upon them, prove this to a demonstration. But the *Horticulturist* has done more than to inculcate the principles of taste, and teach the pleasures of rural life. It has been a scientific and practical work, and by exciting a generous rivalry among gardeners and amateur cultivators, has raised the standard of horticulture, and increased the number engaged in its pursuit. To be assured of this, one need only to refer to the reports of horticultural exhibitions in the early volumes, and contrast them with those of the present year. The competitors, the variety of fruits, flowers, and vegetables grown, and the products, have increased four-fold—and we are only new beginners. One needs a prophetic vision to say what the future of horticulture, in this country, is destined to be. Favored as we are by soil and climate, we may certainly anticipate brilliant results."

Our readers will pardon the space we have thus occupied, for they also feel not only a great interest in the topics treated of in the work, but retain an affection for its founder which will only terminate with their lives.

GOSSIP.—A London friend writes us, that "a party of French swindlers opened in the spring a bazaar of extraordinary seeds, near Regent Street, where great interest was excited by a display of colored drawings of large *scarlet and crimson pansies*, which, they declared, had gained the prizes at the great French exposition! They had, also, drawings of currants as large as grapes, and raspberries as big as plums, of which I was near obtaining plants to send you, when I was warned of the whole being a take in!" Scarlet and red pansies! would be a novelty, indeed.—Mr. Brandegee, Secretary of the Brooklyn Horticultural Society, confirms the report of the excellence of the April exhibition, given in our last, and adds, that there were six blooms from seedling camellias, of Mr. Becar's raising, all very good, and one magnificent, which he has called *Downing*. The stock of this plant will shortly be offered for sale, and it is the intention of the owner to apply the proceeds in some way to keep fresh the memory of that lover of flowers, the fruit of whose labors we are now enjoying. The Azalea "Beauty of Europe," was exhibited for the first time in this country. This Society is one of the most spirited in America.—Flea powder is an article of considerable commerce in Persia, Caucasia, &c. It is made from the red pyrethrum, *Pyrethrum* carneum,

a bright green, tufted thing, with rose-colored flower heads, and leaves not unlike chamomile. It is largely cultivated in Southern Russia, where it is dried to the amount of five-and-thirty tons. How many bushels of fleas this will destroy is not stated. It also kills flies, gnats, and lice, and the maggots which breed in the wounds of domestic animals; for winged creatures, it is mixed with anything they like. It is figured in the 1,080th plate of the *Botanical Magazine*. The powder is called Piré-oti, and was very important to the English and French officers in the Turkish barracks. Possibly, this might prove a remedy for the curculio.—Boydell's traction steam-engine, an English invention, is pronounced "a great success." It ascends a declivity of one in three, *walks* on a common road, with a heavy load behind it, backs, advances, or stops, instantaneously, and its impress is scarcely perceptible where a horse's foot left a deep impression in a turnip field. This success is owing to the endless and wide railway attached to the circumference of the wheels, which gives a fulcrum for the lever, and a bearing sufficiently wide to carry a great weight on soft ground. We shall doubtless hear more of this soon.—In drying plants for preservation, each specimen should be placed between a sheet of brown or blotting-paper, and between each filled sheet several empty ones should be placed: for the first day or two, the pressure should be only just sufficient to prevent the leaves and flowers from shrivelling. When the papers are damp, the plants should be placed in dry ones, increasing the pressure after every shift till the specimens are perfectly dry.—The prizes to be given at the three London Crystal Palace Shows, this season, exceed, in the aggregate, eleven thousand dollars. The lists embrace a wide extent of subjects, and provision is made to encourage the humbler class of visitors. —Roses pegged down to the ground make superb beds. The Red Geant de Batailles, mixed with the White Aimée Vibert, forms one of the best mixtures. Devoniensis makes a noble bed on dry, warm soil, as does Souvenir de Malmaison and Mrs. Bosanquet.—A good friend writes us, "That was a capital article on the treatment of Evergreens in May. It is just the way I treated mine at my old country-seat in Europe, though a lighter soil made it less necessary to dig the radii, but a supply of ashes and rotten leaves was plentifully dug in. I have followed one root of a Scotch pine, for *thirty-eight feet*, till it came up under the highway, where, most probably, its spongioles were gathering all the benefit of passing cattle, horses, &c., to carry those materials to the general store. And as for pruning, this can be effected, by gradual processes, to a great extent, even to the pruning of Norway firs with *shears*, any time during the summer. These hedges look very thick and green, but are not so long lived as Thuja hedges, although stronger and impassable for cattle; but I prefer the Thuja occidentalis closely *shaved* till a hedge of eight or ten years is not over eight inches thick, and as well filled as one can wish."—A correspondent, in New Jersey, says: "I find my wife, as well as myself, *devours* the *Horticulturist*. Strange that it should do *us* so much good, who have only a plum-tree in the bricks, and a bed of horseradish! The latter we pull up every Sunday morning, grate a bit off the lower end, and replant it to grow again! so as to have a *taste* from our own garden. This you may set down as an evidence of the advantages of root-pruning, or of cutting off the tap root!" We hardly know whether this would prove anything except great economy, or, possibly, the advantage of saving *at* the *tap*, and drawing on the *spile* (spoil).—Another, in the editorial line, says: "Your gossip is capital; that for May was so spicy, that I ground it over into a splendid editorial *leader!*" What an excellent newspaper he must publish, and how profitable to be thus able to drive *tandem!*—Another correspondent says, he attempted to tell the story of Mr. Rivers' dwarf cherry-trees, only one foot high, bearing a quart of fruit, when a listener put him to the blush, by assuring him, a neighbor of his had a cherry-tree, in full bearing, which he carried about in his snuff-box! *If true*, these might be sent *under cover* by mail to Mr. Rivers, as a specimen of American improvement of *races!*—Philadelphia is the great centre of camellia propagation. We have nurseries which enumerate forty thousands of these beautiful plants,

and from here they spread *to all* parts of the Union, and even foreign parts.—Recent experiments, as stated in the *Mark Lane Express*, go to show, that common salt is a valuable addition to all applications of guano. It not only has a tendency to give strength and hardness to the straw (which guano weakens), but prevents the loss of ammonia, which is constantly going on even in a dry atmosphere. M. Barral, the French editor, says: "We left in the open air, in plates, during 15 days, equal weights of the pure guano and the guano previously mixed with salt. At the end of that time, we examined anew the amount of nitrogen, and found that the pure guano had lost 11.6 per cent. of its nitrogen, while that mixed with salt had only lost 5 per cent." The *Express* recommends the use of refuse salt from fish packers for this purpose, and any refuse salt would probably answer the purpose.—We have recently conversed with two gentlemen—both practical men, and of critical observation—who informed us that they have now fields in grass, and yielding good crops, laid down some five, six, and seven years ago, manuring them solely with guano, and receiving little or no manuring since.—A correspondent of the *London Times*, in commenting upon the progress of Irish agriculture, states that, during the past fourteen years, the value of farm stock, in Ireland, has increased from £22,000,000 to £35,000,000 sterling, and that the number of horned cattle has risen from 2,000,000 to 3,250,000, while the quality has correspondingly improved. Still, however, of the 20,000,000 of acres which Ireland comprises, only about one-fourth is under direct tillage, and fully one-third in pasture.—Nothing is in worse taste than an evergreen with its branches lopped off half way up. It is but half a tree. It resembles some wretched man, who has undergone a surgical operation that has taken off his arms up to his shoulders; it would be as correct to shave off the wavy silken tresses of a fair girl up to the crown of her head.—A travelled lady recently sent us some honey from Hymettus, with the true poetic flavor still distinguishable. The humble thyme plant, nourishing the Grecian apiaries, lives in the recollection of mankind, whilst the loftiest platanus on the Ohio, awakens no retrospective sentiment whatever. Thus, one of the sources of the pleasures of foreign travel, is denied to the American tourist.—*Pteridology*, some may be glad to be told, is the botany of ferns.—John Reeves, Esq., for a long series of years *Tea-taster* to the East India Company, and to whom England was greatly indebted for many of the most interesting Chinese plants, died in April last. The Spirea Reevesiana, and many other plants, derive their specific names from him. He was 82.—The Impatiens Jerdoniæ, figured in our May number, is easy of culture, so showy and princely in appearance, and continuing in bloom fully six months, is so invaluable, says the *Cottage Gardener*, that no amateur, be his collection ever so small, should be without this gem. It is easily propagated, in the same manner as the fuchsia.—To prevent chickens from fighting, tie an empty bag to the end of a long stick, and, when the birds are intent on their encounter, buffet them with the bag one after the other, and they will soon "give it up."—Fruit growers have racked their brains to discover new forms of training fruit-trees. Enough importance is not attached to those conditions, to which all the others ought to be subservient, that their branches should take that form which involves the least delay, the least care, and the least space, compatible with the greatest amount of fertility—that is, such a form as will give the greatest profit with the least outlay.—From the frequent allusions, in *Punch*, to gardening matters, we have a strong suspicion, that at one period of his life he must have been a cultivator. His last hit is, "A paper to make people smart. A gardener has succeeded in making paper out of common broom. We should say, it would be a capital paper for schoolmasters, satirical writers, and political antagonists, if the broom in question is a birch broom."—Glycerine is a liquid obtained in quantity in the manufacture of soap, candles, and stearic acid, but, till recently, was thrown away. It is now found to be one of the most efficacious agents for softening the skin and healing wounds; it preserves burns and wounds from the action of the air, and keeps the margin of the scar in a

state of suppleness; it prevents the drying of cataplasms, is a valuable ingredient in pomatum, cerate, and soap, and gives perfumes of a highly cosmetic quality; is useful in baths and lotions; alimentary and other substances, coated with it, retain their freshness for a long time, and it improves salted meats; and, in weaving and facing woven goods, it is said to excel any kind of mucilage or paste. It is even supposed, that the meat and vegetables exhibited at Paris, as keeping for an indefinite length of time, were prepared with glycerine; it is also administered internally, as a medicine, and horse doctors have availed themselves of it with the happiest results.—There is now but one opinion regarding the irresistible remedy for the grape-vine disease; sulphur, dusted copiously upon the parts affected as soon as it appears, the precaution being first taken to syringe the vines.—A monument is to be erected to Alexander Wilson, the most able writer upon North American ornithology, in his native place of Paisley, Scotland, during the present summer.—Rats are the annoyance of everybody. We gave a receipt, lately, of fried cork cut in small pieces, which they will eat and cannot digest. Waterton got rid of a houseful, by catching one and dipping his hinder parts in warm tar, and then turning him loose in his old run. The others, seeing his condition, and smelling *such* a rat, thought it prudent to take themselves off. On examination, it was found they had actually gnawed away the corner of a peculiarly hard brick which had obstructed their thoroughfare.—Were I asked, says the same remarkable naturalist, my opinion of a highly cultivated flower-garden, I should say it is the loveliest sight in rural nature; and, moreover, that if it afforded me an opportunity of listening to the song of birds, I should pronounce it little short of absolute perfection. But, in general, the charming melody of birds is of too rare occurrence in the modern flower garden.—Cats, he says, amongst birds, are like the devil amongst us; they go up and down, seeking whom they may devour. You must absolutely chase them away for good and all, otherwise there will be no place for your birds. A small quantity of arsenic, about as much as the point of your penknife will contain, rubbed into a bit of meat, either cooked or raw, will do their business effectually.—Gardeners are, in general, choice observers; to them

"Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume."

—Rational people now-a-days, will scarcely believe, that near the close of the last century, most men considered that the appearance of the horse was considerably improved by depriving the poor beast of one-half of its ears. Yet this was the case; then the tail was cropped, and both fashions coming at the same time, it was no uncommon sight, each extremity presenting a distressing picture of mutilation and deformity. People were found who took horses to board, to have their ears properly clipped, and their tails docked. A sticking plaster was attached to the back, and the tail fastened to this canvas, to mount it in the air. About as rational, you will say, as some of our more modern *fashions*.—A correspondent says: "I have the ten volumes of the *Horticulturist* bound, and they could not be bought of me for money; I consider them indispensable for reference on fruits or flowers, and they are all as valuable to me as they were the day I first received them."—Five agricultural warehouses, in Boston, sell, annually, two and a half millions of dollars' worth of agricultural tools.—Okra is proposed for making paper and rope, and, probably, it will answer a good purpose. It is readily stripped of its bark by threshing.—A New Property of Steam. Persons in the city, who are in the habit of receiving winter fruit, such as apples, &c., per railroad, complain frequently of the great reduction in quantity, which the fruit suffers *in transitu*. This, we presume, is attributable to the motion of the cars, or the whistle of the steam, although a suspicious friend suggests, that steam would hardly be able to force apples out of barrels, and cram them into the mouths of the brakesmen.—A California letter, speaking of the extravagant spirit that prevails everywhere in that State, says: "Apples (of

large size, to be sure) were offered at fruit stands for sale, at four dollars and fifty cents apiece. The price is not more remarkable than that there are many persons indiscreet enough to purchase and eat them even at this rate. If this taste continues, who will say that the orchards of Oregon shall not come to be as valuable as the gold mines of California? —A reminiscence of the late winter, which it may be as well to put on record, partakes of the fun and exaggeration of our people, as follows: The *Syracuse* (N. Y.) *Journal* says, that the plank roads in that section are so drifted with snow, that the gate-keeper comes up through the scuttle in the roof of his house, and receives the toll by reaching up through a hole in the middle of the road. The additions made to the drifts by the recent fall have been so great, that all communication through the scuttle is cut off, and the toll is now paid to the gate-keeper by dropping the money down the chimney!—The Detroit *Advertiser* states, that they have exported to Chicago something over 800,000,000 feet of lumber, about 100,000,000 feet to Wisconsin, leaving only 100,000,000 for home consumption, which is a very low estimate. The whole value of the exports of lumber exceeds a million of dollars per annum.

More Matter.—By consulting the economy of our type, we have at length succeeded, without reducing its size, in giving one-third more matter, in each number of the *Horticulturist*, than was the case six months ago. This addition is brought about by omitting the very thin *lead* between each line in the majority of our pages. The appearance is slightly affected, but the increased amount of reading is extremely enlarged. This has enabled us to insert most of the favors of our correspondents, opening the way for new contributions.

Answers to Correspondents.—Food for Grape-Vines.—(W. B.) You have, on your own premises, excellent manure for your grape-vines. Make a basin round the roots, get the sweepings or manure of the poultry-yard, and keep it constantly diluted or dissolved in a barrel, at the rate of a peck to a barrel of water. Every week, on washing day, empty a pailful of the manure-water upon the roots of the vine, and, afterwards, as much "suds" as the vine will take up. The result will be a healthy vine, and fine crops, the fruit about twice the size of a neglected vine.

Evergreens.—(J. C. S.) Any well-decomposed compost will suit evergreens. Animal manure, especially in a fresh state, should never be employed.

Hedges. If your arbor vitæ hedge is not well supplied with branches near the ground, peg down, and bring into the earth, a few of the lowermost ones, and, with mulching, they will soon form new, and, as it were, a separate tree, which, by training, will cover all defects.

The mulching for evergreens should be fine chips, spent tan, sawdust, &c. These are among the very best manures for evergreens. If stones are employed for mulching, leaf mould should be occasionally put under them.

(W. B. B., South Carolina.) The evergreen oak, *Quercus ilex*, suitable to your climate, bears the influence of sea air perfectly, and would be a very profitable tree to plant as well as extremely ornamental—none more so. The Laurustinus, it will interest you to know, may also be included in your list of shrubs to plant within the influence of the sea; it succeeds well in such places, and may be even used at the South as a hedge plant, than which nothing could be more superb. The Araucaria and Cedrus Deodara will also suit you. Ah! if we only had some climates and situations that we know of at the South, we could make such a little earthly paradise as it would be hard to leave.

Old Seeds.—(E. R. H., New York.) We shall be glad to hear the results of your experiments, although we fear that you will destroy their vitality in the process you propose trying. Various agents have been employed, with a view to assist and hasten germination by

an increased supply of oxygen. Chlorine, in a diluted state, has been used with advantage. It may be obtained by mixing a tablespoonful of muriatic acid with a like proportion of black oxide of manganese, and a pint of water. The seeds are steeped for two or three hours, and then sown. A better way would be, to introduce a weak stream of chlorine gas into the soil, *after* the seeds are sown; this you may obtain by mixing the above ingredients in a retort, and applying a gentle heat.

Oxalic acid has also been used as a steep, and found to be very effective, removing the seeds as soon as vegetation commences.

Seeds moistened with water, and then rolled in newly slacked lime, are said to vegetate more readily, but experiments on this subject have not been much extended, and you have, therefore, an ample field for indulging, as you say, your "fancy for horticultural experiments." It may be well to remember, that seeds will not germinate unless in contact with atmospheric air. And we have the authority of Saussure, that light forms no impediment to this process, and that the development of the plant is more rapid than when the seeds vegetate in darkness. Light has been considered injurious, but this may proceed from the difficulty of keeping seeds uniformly moist when placed on the surface.

New and Valuable Trees and Fruits.—One of the most remarkable catalogues ever published has just appeared in Leyden; it contains a priced list of the Japanese plants actually cultivated in the nursery of Siebold & Co., of that place. As is well known, the Dutch monopolize the intercourse of Europeans with Japan, the country most in climate like the British Isles, but resplendent with a vegetation infinitely richer and more varied. Camellia, Cephalotaxus, Cryptomeria, Aucuba, Chimonanthus, Clematis, and Pyrus Japonica, sufficiently indicate how beautiful and hardy is the Flora of Japan, to say nothing of Weigela, Forsythia, and the whole race of Moutans. Availing themselves of their commercial privileges, the Dutch have sedulously occupied themselves with the acquisition of everything most worthy of introduction to Europe, and the result is already a total number of 3 or 400 species and varieties offered for sale by the firm above mentioned. Of so curious an assemblage we are sure that a brief account will be interesting to all lovers of gardens. We shall, however, confine our remarks to what are represented to be hardy races.

In the first rank stand Conifers, among which we find four species of *Cephalotaxus*, *Juniperus japonica* and *procumbens*, *Pinus densiflora* and "the true" *P. Massoniana*, *Podocarpus Coraiana*, *Retinospora squarrosa*, and that famous *Thuja dolabrata*. The last has no price attached.

Among forest-trees are mentioned two Sycamores, Acer japonicum and polymorphum, the stock of which is held by Van Houtte, and Ulmus Kejaki, which, we are assured, furnishes the most valuable timber known in Japan.

Fruit-trees comprehend a very early Apricot called *Armeniaca Mume*, whose early rose-colored flowers are extremely ornamental, while the fruit, owing to the firmness of the flesh, is particularly well adapted for preserving. There is also a plant allied to *Pyrus japonica*, named *Chænomeles umbilicata*, thus described: "The fruit of this variety is perfumed like Violets, and, in the hands of the confectioner, surpasses in flavor all the fruit in our gardens." Mention, moreover, is made of a Japanese variety of Peach.

Small flowering trees and shrubs form a considerable part of the catalogue. The following appear to be the most remarkable: *Acacia Nemu*; a weeping Apricot named *Armeniaca pendula*, whose branches are described as falling almost perpendicularly; a new variety or two of *Aucuba japonica*; *Catalpa Kæmpferi*; a Judas tree, *Cercis chinensis*; *Corylopsis spicata*, a small bush resembling the Hazel; *Weigela hortensis*; *Indigofera Iwafusi*; a variety of *Kölreuteria japonica*; a new Privet; *Litsæa glauca*, a yellow-berried Laurel; *Malus Toringo floribunda*, and *Rinzo*, three dwarf Apples, abundant flowerers, well adapted for forcing;

Rhus Osbeckii, "on whose leaves galls are formed of better quality than those of Aleppo;" *Ligustrum Ibota*, the true wax Privet, on which the wax insect (Asiraca cerifera) naturally feeds; two Roses, called Iwara and Camellia; *Spiræa rupestris; Tamarix chinensis;* and a great may sorts of Tree Pæony.

Climbing shrubs include *Tecoma Thunbergii*, the true *Bignonia grandiflora* of Thunberg; some new Wistarias; *Aristolochia Kæmpferi*, and *Ampelopsis heterophylla*.

Finally, there is a considerable number of herbaceous plants, among which are included several new kinds of *Funkia* and *Lilium*, a Burdock called *Lappa edulis*, the roots of which are eaten like Scorzonera; a couple of Irises; *Polygonatum japonicum*, whose roots are a substitute for Asparagus; a *Polygonum* called *Sieboldi*, recommended as a green crop for cattle food, as an excellent bee plant, &c. &c.; and the Chinese Yam, which M. Siebold calls *Dioscorea opposita*, and to the hardiness of which he fully testifies. He also offers seeds of the Soja japonica, the real plant from which the sauce called Soy is prepared.

Some of these novelties have been already introduced into England, and are offered for sale by R. G. Henderson. Who will be the first to advertise these interesting articles in America?

WASHINGTON CITY, D. C., June 3, 1856.

J. JAY SMITH, Esq. DEAR SIR: I have just sent to your address a box of Strawberries, a new French variety—Vicomtesse Hericast de Thury (one which I received under the name of Duchesse de Travese proves to be the same). I have grown this strawberry two seasons, and have no hesitation in pronouncing it first rate in every respect—its foliage is large and firm, and not subject to scorch or burn under the fierce rays of our summer's sun. And through the last intense cold winter it passed unhurt without the slightest protection—here then are the two first and most essential qualities for a strawberry to possess, namely, hardiness and capability of withstanding brilliant sun. The fruit you will perceive is of good size, bright color, firm flesh, and exquisite flavor—in addition it is a most abundant bearer, swelling off a fine crop of fruit of uniform size.

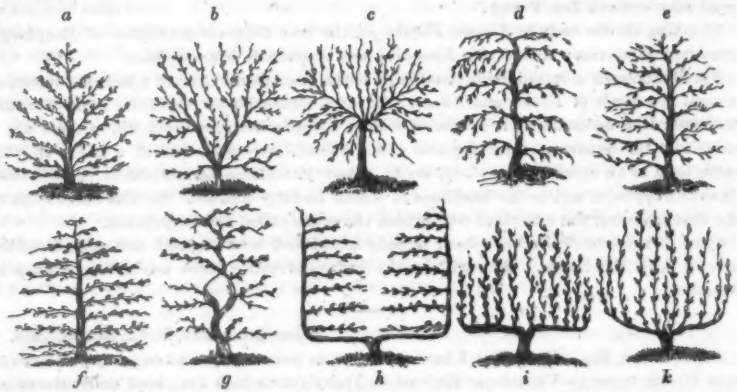
I have now fruiting Omar Pacha, Nimrod, Comtesse de Marne, Princess Royal, with many other new French and English kinds. Respectfully yours,

JOHN SAUL.

[The box was received and the berries were in the finest condition. We pronounce the Vicomtesse a valuable fruit, with the qualities given above. It will be an excellent market variety, some of the berries having kept perfectly, after their journey, for five days, without the least decay.—ED.]

TRAINING AND PRUNING.—Training and pruning are two important operations in horticulture, and closely connected together. In a previous page, we gave some examples of the former, and shall here present additional modes. The principles upon which both are founded vary according to the object in view. Training depends more or less on these facts—namely, that as the sap in all trees has a natural tendency to flow in an upward direction, it follows that the buds at the highest points above the roots will be the strongest and most disposed to produce leaves and shoots; and, therefore, when the formation of wood is desired, the nearer to the perpendicular a tree is trained the better; whereas, if the formation of blossom buds be the object in view, the very opposite direction should be given them. In fact, training is the power which governs the flow of sap in trees and plants. Hence, nurserymen train weakly growing young plants nearly in a vertical direction, while they place the strong growing kinds nearly horizontally, and even, in some cases, nearly pendulous. During the growing season they have an eye to the progress each is making, and elevate or depress the shoots according to circumstances.

The following figures show the leading methods of training wall and espalier trees, with the names by which they are designated. We insert them together, in this form, for reference.



a. The herring-bone fan. *b*. The irregular fan. *c*. The stellate fan. *d*. The drooping fan. *e*. The wavy fan. *f*. The horizontal. *g*. The horizontal, with screw-stem. *h*. The horizontal, with double stem. *i*. The vertical, with screw shoots. *k*. The vertical, with upright shoots.

Besides these, espaliers are trained horizontally, or in form of a table, the stem rising through the centre of the trellis, and the branches being trained in a radiating form. Sometimes the espalier is placed vertically, sometimes placed at one or other angle of elevation, either according to the latitude of the place, or the whim of the owner. All pruning and training must be considered subordinate to a proper selection of stock, and to operations on the roots. The true balancing of the power of the roots to that of the branches is most important.

In pruning, the following practical rules should be attended to. Commence on hardy trees soon after the gathering of the fruit and the fall of the leaves. Avoid frosty weather, or when it is approaching. In cutting, always draw the knife in an upward direction, and leave the wound smooth, to prevent the lodgement of water. In removing young wood, leave about an inch of the branch above the last bud; make the cut on the side opposite to it. But, in removing an old branch, cut it as close to the stem or branch left as possible, in order that the bark of the latter may cover the wound sooner. Use a sharp knife, a due share of consideration, and be not in too great a hurry, lest you remove the branch which ought to have been left. Cover the wound with a solution of shellac in alcohol, which you should have always at hand. For more particular directions in regard to the various kinds of vines and fruit-trees, refer to the several valuable American fruit books, such as Barry's, Elliot's, and Thomas's.

Budding Roses.—In roses, as in many other things, climate has a great influence in modifying our operations. For instance, budding can seldom be performed successfully with us till July, and, in many seasons, may be continued till October. The condition of the stock is a better rule to go by than any given period of time. Budding ought not to be done when the sap is too watery, which may be known by the bark being very thin and delicate, on being raised with the budding-knife. It should be quite hard and firm, at the same time separating readily and easily from the wood. The condition of the scions is also of import-

ance. Buds taken from shoots in active growth are not so good as those selected from branches that have partially exhausted themselves. To this end, stopping a strong growing shoot a few days before we intend to use it for budding, checks the circulation upwards, and throws more organizable matter into the buds. With us, also, it is not of importance to take out the wood after cutting out our bud; the best operators take as little as possible with the bark. A great cause of failure is in not taking out the bud with a straight, clean cut. The edges of the bark, after the bud is cut out, must not be split and cracked up as if a jackplane or shingle-shaver had been employed, or failure will be certain. Use a thin bladed knife, and keep its back well away from you, or downwards, while using it.

Seed and Fish Experiments.—Mr. Darwin, the eminent naturalist, says the *Gardeners' Chronicle*, is continuing his experiments on the vitality of seeds, with a view to arrive at data as to the distribution of plants. Among the points involved in this interesting inquiry are—the length of time in which a seed will live in the intestines of a bird or other animal, and the circumstances under which it may be dropped in a distant place, and germinate: also, how long will seeds retain their vitality when floating in the currents of the sea? The last question is now under investigation with seeds collected on the coast of Norway, and at the Azores, whither they had been drifted by the Gulf-Stream. Another branch of the inquiry relates to the distribution of species of fish. Naturalists want to know, for instance, whether the eggs of salmon will retain their vitality sufficiently long to produce fish, when carried through varying temperatures to places wide apart. In one way, the question has been answered in the affirmative by the piscicultural experiments to which we have more than once called attention. Dr. Davy has now solved it in another way. He took impregnated ova of the char, from a stream falling into Windermere, and subjected them to temperatures varying from 70° to 98°. The result showed, that the older the eggs the better they resisted the heat: the youngest died in the first experiments. Another mode was sending ova packed in wet wool, inclosed in a tin box, from Ambleside to Penzance, and back again—more than a thousand miles—and with like results. And such being the case with the very delicate char, there is good reason to believe of the more hardy salmon species, that the strength of vitality of the impregnated ovum, or its power of resisting agencies unfavorable to its life, gradually increases with age, and the progress of fœtal development.

The Maclura.—A valued correspondent calls our attention to an article that has had some currency in the West, respecting a change of name for the Maclura. The writer, who is a large cultivator of this hedge plant, wishes it to be called "the Prairie Hedge Plant," to which our correspondent very properly objects; he says: "'Osage Orange' is beautiful, romantic, grateful, appropriate; all but universal; these kind of people are no better than the *Tame* plum, *Tame* gooseberries, and *Tame* grapemen! Why don't they call the Hickory the Axe-Helve-Tree? If one has a foolish whim that a horse ought to be called a saddle, let him do so himself quietly, but not disturb conventional Anglo-Saxondom, by printing silly arguments in support of his whim." We apprehend there is no great danger of his succeeding.

Michigan Transactions.—We have received a complete set of the Michigan Agricultural *Transactions* from J. C. Holmes, Esq., its estimable Secretary, and another copy for the Philadelphia Library, an institution with which we have long been, and still are, connected, and to which we shall be happy to forward pamphlets, books, &c., on this subject, or any other, that are worthy of preservation. Mr. Holmes has our thanks, and he will be officially informed of the estimation felt for his gift by the proper officer of the Library.

Ugenia Ugni.—We regret to learn, from Mr. Buist, that the Ugenia Ugni, a fruit bearing shrub, mentioned several times lately in this work, and recommended lately by Mr. Sargent, is not likely to be hardy here. It will require either to be taken up every winter, or kept as a greenhouse plant in this latitude. At the South, it will prove of great value.

The Pampas Grass.—Several paragraphs in this journal have lately alluded to the Pampas Grass as highly ornamental. A number of questions regarding it have reached us, to which we reply, that it is scarcely known among us yet, though two or three friends have it coming forward. The following description is from the London *Gardeners' Chronicle*:—

"One of the most interesting plants, now in flower at Turnham Green Gardens, is the Pampas Grass of Brazil (*Gynerium argenteum*). This plant has twelve flower stems, each some eight feet long, about the thickness of the thumb, and supported by an erect panicle of inflorescence at least eighteen inches in length, which, beneath the bright sunshine, looks a beautiful, light-colored feather, spangled with silver; the panicle is in the form of the beautiful *Arundo phragmites*. The leaves, which are some seven or eight feet long, with a hard, flinty skin, grow in tussocks, which, in situations at all favorable, soon acquire a large size; when in flower, certainly few plants are more striking or magnificent in appearance than this gigantic grass, which, being perfectly hardy, will be found to be a great acquisition to ornamental grounds."

Bees.—Here is something about bees which quite abates our early prejudice in favor of those always instanced little creatures that "*improve* each shining hour."

"Many curious instances have been noticed by naturalists, illustrative of the instinct which directs various animals to proportion the amount and nature of their labor to the exigencies of particular cases. Bees transported from Europe to Bermuda, omitted, after the experience of one season, to make the annual provision for the winter; and, laying aside their habits of industry with the necessity of exertion, became idlers and sources of vexation to the inhabitants."

Dr. Ward's article on the Pear will appear in our next.

Pruning the Pear-Tree.—We recommend to all practical men the article by "B., New Jersey," in our present issue, on pruning the Pear-tree. It contains the essence of what it is desirable to know on the subject, in a condensed form, and we are mistaken, if there will not be found in it much that many practical men have yet to learn.

We have received the rules of the *British Pomological Society*, established in London, in 1854, of which Sir Joseph Paxton is President. This is the first in Great Britain, but we hear nothing of its reports. Will one of our English correspondents send them as they appear?

The Transactions of the Northwestern Fruit Growers' Association, held at Burlington, Iowa, last September, have at length reached our table. It is the fourth session; the discussions are of great interest; practical men have given their experience; facts are settled, synonymes determined; the pamphlet, in short, is necessary to the Western fruit grower.

Plum culture was first discussed, and, of course, our acquaintance "the little Turk," received complimentary attention. Mr. Barry said the plan of paving under trees, gave him the idea of beating the earth hard; a boy, at the same time, jarred the trees, and picked up the punctured plums; and thus the larvæ and insects are destroyed, not only protecting the present crop, but lessening the next year's crop of insects. He thinks the

idea that we shall ever find a remedy without labor is fallacious, and he admitted that Matthews' remedy, whatever it may be, will require as much or more labor than the above. In short, this pest is left just where he was—on the plums. Dr. Hull said he had invented a labor-saving machine, not heavier than a wheelbarrow, to jar off the punctured fruit, which falls into canvas, with the insects. He said the curculio attacked his peaches.

It was agreed to recommend the free growing varieties of the American Wild Plum (Prunus Americana) as the most suitable stock on which to work the plum.

Fire-blight; Mr. Fahnestock said, where they cut off the affected spur, they saved the tree, but, if that remained, the disease spread over the trees, and destroyed them clear to the body. Mr. Barry said this virulent form of blight makes its appearance in warm, humid atmosphere, and prompt amputation saves the trees; some varieties are more liable to it. The Buffum Pear is exempt from this disease. This Pear is figured the present month.

Mr. Barry's address was an excellent and practical one. He thought pomology was to make its greatest triumphs in the West. "Who ever saw, before, such apples or such pears as are displayed here? I never have, in all my travels, either at home or abroad. * * * Twenty years ago, two or three nurseries around New York, and an equal number in Massachusetts, supplied the Union. Now, nurseries may be counted by the thousand, even to the shores of the Pacific. * * * Our pomological literature has been created, one may say, within the last ten or fifteen years. * * * Robert Manning, of Salem, Mass., was one of the first who made systematic attempts at a pomological garden; this was in 1823, and, in 1838, he enumerated 160 varieties of apples, 620 of pears, &c., in all, 922 varieties; in 1842, the number was estimated at 2,000 varieties." Mr. Barry made no allusion to Wm. Coxe, who commenced long before. * * * "Mr. Wilder, at the present time, enumerates 1,000 varieties." * * * Mr. J. S. Cabot, Samuel Walker, B. N. French, Hovey & Co., Wm. Kenrick, &c., received honorable mention, as did the late Mr. Prince, Charles Downing, A. Saul, A. J. Downing, David Thomas, and his son; Thorp, Smith, Hanchett & Co., F. R. Elliott, A. H. Ernst, &c. &c. Some highly valuable portions of Mr. B.'s address we shall print hereafter.

The subjects of taxation of nurseries, and of tree peddlers, attracted considerable attention, and were discussed in a business-like way. Root grafting, the cultivation of the cherry, the strawberry, &c., were discussed, but we do not find any recommendation from the association of any particular kinds.

Of apples, however, the early Joe, Dutchess of Oldenburg, Mother, Hubbardston, Nonsuch, and the Spice Sweet, were continued for further trial.

Peck's Pleasant and Primate were recommended for moderate cultivation; the Willow Twig for extensive cultivation; the Newtown Pippin for cultivation in particular localities.

The Bark louse was discussed at some length, and Mr. A. G. Hanford has communicated the remedy he furnished the description of in the *Horticulturist*, viz: a mixture of tar and oil, put on in the form of paint. Mr. Dunlap was of opinion that the height of this difficulty was now reached, and that the insect would become less troublesome. He uses one pound of potash in seven gallons of water, as a wash, with success.

The Report is satisfactory, and will be, we trust, largely distributed.

Stopping Summer Growths.—You would hardly suppose that there is a man, woman, or child, in all the world, who could not learn the art of "stopping" the shoots of plants and trees at one lesson—pinch out the top of the shoot with the forefinger and thumb, and the thing is done in a moment. So it is, sure enough; but there is no *art* in that way of doing it at all; and may be a great deal of mischief in it, and there often is.

I once lived with a gentleman who never went about in the country without his walking-stick, which had a "spud" on the bottom end, with which he was constantly routing out

docks, thistles, and other noxious weeds, in and round the fields and plantations, wherever he went; also the plantains and daisies on the lawn, and such weeds as he could see in the beds or borders; and, to the last, I could never convince him that he often did more harm than good by so doing. It was his way, and he could no more help it than I could. A Groundsel, or a Shepherd's Purse, or a Dandelion, and many more such common weeds, take several days after the flowers open before they seed, or do any more harm than is done already; meantime, some one passes by that way who pulls out the weed, and carries it out of the way at once, or sends some one else to weed that bed or border; but the "governor" gets there before him, with the everlasting spud and the ruling passion, twists down the Groundsel with one turn of the spud, cuts the neck of the dandelion in two, or makes a hole in the grass, big enough to play marbles into, trying to root out a plantain or a daisy —all of which is doing more harm than good. The Groundsel has sap enough in it to ripen its seeds while it lies unperceived till the mischief is done, till a fresh crop of seedlings spring up. So the bottom half of the broken neck of the dandelion sends up four heads for the lost one, and there are thus four chances that the mischief will run much further than it would were it not for the spud. In short, I would as soon let a Welsh goat into the shrubbery, as let an amateur spudder into any part of my own garden.

There are other people, and most of them are nice, amiable people, who never do any real harm in a garden, save one kind of mischief, and that they do unknowingly to themselves. It is *their* way of "stopping." If *they* stop a thing, they think it is stopped for good, and there is an end of it; but the end is no better than from spudding; they pull up the weed, and, may be, shake the soil from the roots; but they throw it down in the same place, and if it is of the seedling class, a crop of seeds is sown there before the gardener sees that a dead or a dying weed was there at all; whereas, if this weed had been left standing, he would have seen it the next time he passed that way; and he would "stop" it according to the rules of his own art; he would have it up, root and branch, and carried off at once; and all those who stop weeds on any other plan do, or may do, more harm than good.

There are other masters, and some mistresses, too, who read a great deal about gardening without ever *studying* one single word on the subject. You would take them to be very clever on gardening from their conversation, but if you saw their "stopping," you would just think as I do, and I think a great deal, at times, about such things. The meaning of a sentence of much import may be lost by putting the comma, the smallest "stop," in the wrong place; and it is the same if you apply the smallest stopping to plants and trees; stopping a shoot at the wrong time, or in the wrong place, may spoil the shape of a specimen, the flowering of the best geranium, the fruiting or the future crop of a vine or a peach, or any one plant you may think of; and yet these superficial people think there is no art in stopping, beyond the mere process of doing the act, from the weeding of the walks, up to the regulation of the branches of the Mangosteen itself. You have only to put *their* stopper on, and all is right; and must be right, for they have read of it, and knew it years ago!—*Cottage Gardener.*

Olden Mode of Heating.—That quaint old writer, John Evelyn, in his *Gardeners' Calendar* for November, gives the following directions for heating a greenhouse; the date is 1676, about the period of the settlement of Pennsylvania: "If the season prove exceeding piercing (which you may know by the freezing of a *dish* of *water*, or moistened *cloth*, set for that purpose in your *greenhouse*), kindle some *charcoals*, and when they have done smoking, put them in a *hole* sunk a little into the *floor*, about the middle of it. This is the safest *stove*." The cloth for a thermometer! The "charcoals" would have been a poor protection last winter!

AGRICULTURAL.—*Washington*, April 19, 1856.—Much activity exists in the agricultural branch of the Patent Office, under the direction of Mr. J. D. Brown. A number of gentlemen, in various parts of the country, are engaged in making experiments in agricultural chemistry, and several interesting reports have just been received.

One, from Dr. Charles T. Jackson, of Boston, who has analyzed the corn cob, acquaints the Bureau that it contains four and a half parts of nutritive matter, consisting of gum, starch, and dextrine.

Another, from the same gentleman, who has made geological excursions through the States of North Carolina, South Carolina, and Georgia, furnishes the result of chemical researches on the seed of the cotton plant. He says that cotton seed may be profitably employed in the production of a rich, fat oil, and that the woolly fibre adhering to the hulls may be economized in the manufacture of paper, while the substance of the seeds, or their "meats," after having the oil extracted, may be employed for feeding animals, and also as an excellent fertilizer.

The following is the analysis of the oil cake, made from the cotton seed: Carbon, 37,740; oxygen, 39,663; nitrogen, 7,753; hydrogen, 5,869; salts (inorganic), 8,960; total, 99,985.

On separating the various salts, and reducing them to their ratios for one hundred grains of the oil cake, the following results were ascertained: Alkaline salts, soluble in water, 0.13; phosphate of lime, 3.04; potash, 0.46; soda, 0.53; phosphoric acid, with traces of sulphuric acid and chlorine, 0.80; silica and oxides of iron and manganese, 0.18; loss, 0.35. Total, 5.50.

The analysis of cotton seed justifies and explains the use made of them by the Southern planters in preparing the soil with the rotted seeds, as a special manure for Indian corn, which draws so largely on the oil for phosphates.

The Bureau has been sending out small tubers of the Chinese yam, which was recently introduced into France from the North of China, and bids fair to serve as a substitute for the potato.

ARISPE, BUREAU CO., ILL., March 9, 1856.

DEAR SIR: Our winter has been the most severe that has been known lately. Peach-trees are all dead, old and young; cherries also, all the Heart and Bigarreau varieties. Pears, also, are nearly all dead; few varieties, probably, will leaf out; but whether they will live through the summer, time will only tell. Plums are also badly used. Roses are killed to the ground—all the ever-blooming sorts that I have examined. Apples, I think, are not injured. I have two Napoleon Bigarreau trees, six years old, budded upon the Morello stock, four feet up from the ground; they are unharmed. Also, one other variety, name not known, budded up nearly as high, unharmed. My loss in trees, &c., winter killed, about 2,000 dollars; rather hard luck for a new beginner, but I am not the only one; it is universal all through this section of country.

CITIZENS NEW TO THE COUNTRY.—DEAR MR. EDITOR: I live in an old village which has suddenly become the vogue. A perfect rush of city merchants, and others, has destroyed all my old nooks and solitary rambling grounds. The springs of water have been dammed into fish-ponds, and my trout stream made to wander through tame gardens. Gardens, did I say! Why, some that are so-called are a curiosity for a museum. I say nothing of the silver maples that do duty for ornament in long, straight rows, nor of the hideous specimens of evergreens which disfigure, rather than ornament, my poor old town. It is the kitchen gardening that I object to; the new "vegetables" that are introduced, and the rush that is made for "good gardeners." Mine has been induced to leave me, after ten years of faithful service, because he was offered ten dollars a month more than was ever paid in the good

old times. Well, if people can afford to pay so high for their eatables, so be it; some of us must raise our own, or go without our truck. But I want to know what business anybody has to "live in the country" who has no kind of knowledge of country things?

My illustrations must take the conversational strain; the following lucid talk actually occurred in the parlor of one of my new neighbors, last evening, and the provoking part of it was, the interlocutors never appealed to me for information; *me*, who had lived all my life in the country! I was voted an ignoramus, because I knew nothing of silks or Irish linens. But, to our evening conversation.

First Lady. "Oh! Mrs. Firkin, I'm going to keep bees!"

Second Lady. "Are you, indeed! I should like to make honey, myself; but where do you get bees?"

First Lady. "Why, just as you get birds. The carpenter was here to-day, making wren boxes, and I got him to make me a pair of bee-hives, and a shelf just under the bay-window. Won't it be nice?"

Second Lady. "Do the bees come and take possession like the bluebirds and wrens?"

First Lady. "I expect so; don't *you* know?"

Husband. "My dear wife! you have made a great mistake. Bees *swarm*, and have to be carefully hived. You might wait a century for a swarm to take possession. You *ought not*, my love, to attempt things you don't understand. This is the fourth or fifth time you have—"

First Lady. "Do be quiet! I don't believe you know anything about it!"

Third Lady. "Oh! how charming it is to have a good, large garden. Our man has been planting Lima beans, and has scoured the whole country for poles! I do believe the fellow has been away a whole week getting poles!"

Note.—I had been looking into this "fellow's" gardening, and know it to be a fact, that he has staked morning glories that came up all over the ground, and, being vines, he thought they were Lima beans! Most of the time he was away for the poles, he was loitering at the tavern.

Fourth Lady. "Well, I declare, I'm almost sick of this gardening. Last year, we ordered a large quantity of early beets cultivated, and, when they came up, they were all sunflowers! Our man was cheated into buying six pounds of sunflower seeds, for beets!"

Fourth Lady's Husband. "You forget, my dear, that *you* brought them home, after a day's shopping, yourself; and—"

Fifth Lady. "I should be well contented to live here all the year round, for the sake of having a cow. But, do you know, the calf takes all the milk!"

First Lady. "Oh dear! Why, how old is the calf?"

Fifth Lady. "Only eight months! We never get a drop of milk."

Guffaw from poor me! "Oh! oh!! oh!!!" and I am voted A GREAT BORE.

THE THREE CROP SYSTEM.—The *Boston Transcript* gives so intelligible an account of Mr. Simpson's mode of obtaining three crops of grapes in two years, that we copy it for the information of our readers.

"Mr. Simpson states, as the foundation of his theory, the following principles:—

1. To perfectly ripen the wood, leaf, and bud.
2. To secure a thorough resting of the vine, by withholding moisture from the roots; and
3. To keep up a brisk root action throughout the growth of the crop.

By imitating the dry season of tropical countries, he effects the ripening of the wood, and the fall of the leaves of the vines that have produced his early spring crop, and the vines are then laid down to rest until the period of three or four months, the season of rest shall have passed, when they are again set up, and encouraged to bearing.

It is obvious that his vines that bore his late crop, say in September, ripen their fruit, and their wood, and let fall their leaves through the influence of autumnal cold.

His chief improvement appears to be in applying drought as a substitute for the cold of winter, and in managing to have his vines in bearing every eight months, so as to produce three crops of grapes in two years. This gain he effects without any injury to his vines, as sufficient practical trials have already proved.

With regard to the method of cultivation of these vines; ten days before starting the buds, the earth is warmed, and in three weeks the vines are ready to be set up. They were started on the 15th of December, 1854, and bloomed in five weeks. The first swell of grapes was four weeks after blooming; four weeks later, the seeds are hardened, and, during this most important vital process of the plant, there seems to be a suspension of growth of the juicy portion of the fruit. In four weeks more the grapes ripen. In all, the time is about sixteen weeks. On the 20th inst., the early grapes—'Macready's Early White'—had been ripe for some time, and the Black Hamburgh, Chasselas, and other late varieties, were nearly ripe—some of the bunches being quite perfect and of high flavor.

The vines, now loaded with ripe grapes, will be laid down to rest, and not be again awakened until next August, when they will be set up for their next crop, which will be ripe in January.

They will next be started in April, and will ripen in September following, and then again they will be started in December. Thus the three crops will be produced in twenty-four months, or eight months for each crop."

Remedy for the Apple Bark Louse.—The best remedy for this insect is, probably, the following: Boil leaf tobacco in strong lye until it is reduced to a pulp, and mix it with soft soap (made cold—not the jelly-like boiled soap), to make the mass about the consistence of thin paint, which will not be washed from the tree by the first rain. The fibres of the tobacco cause it to remain for some time. First trim the trees well, and apply the preparation, with a paint-brush, to every twig and limb, before the buds have much swelled in the spring. One hundred and fifty large trees can be gone thoroughly over, by two men, in a fortnight. These insects from neighboring yards will not attack trees thus treated.

Bridgewater, March 24, 1856.

The Rhode Island Greening.—Mr. Editor: The Rhode Island Greening was a famous apple here twenty years ago. Is this becoming an extinct variety? Of late years, the fruit is abundant, but it does not *set* well, and, by the time the apples are as large as a walnut, the tree is bare; or, perhaps, a peck where there should be a barrel, is found in October; and so for ten or fifteen years it has been. Trees ten and fifteen years old, succeed no better than those of forty and fifty years. To make our greening-trees bear, must we change the soil, or manure, or add manufactured manure? Must we seek out a new stock, on the theory that the old Rhode Island Greening stock has run out? Or is the cause of this defect to be sought for in the atmosphere? is it in the climate? I trust that some one of your readers will give us the result of his experience with this formerly noble fruit.

A Subscriber.

Homemade Wine.—Dr. Thompson, of Wilmington, Del., has furnished the editor of the *American Farmer* with the following receipt for making domestic champagne, pronounced equal to any imported:—

Dr. Thompson's Recipe for Making the Domestic Catawba and Isabella Wine.—The Catawba is, I think, much the best. Select the ripest and cleanest Catawba grapes. Mash and squeeze them up thoroughly—then strain the liquor through a fine sieve—then through

flannel. To 2 to 2½ gallons of this juice, add 3 gallons of water, and from 15 to 20 lbs. of pulverized white sugar—these proportions to a five-gallon demijohn is, I think, the best mode of making it—always having enough left to keep filling up the vent—leaving the cork out until the fermentation is done—then decant, and put up in champagne bottles, and you have the wine you drank here. The very finest and dryest grapes should be selected.

The first number, for May, of the *South Carolina Agriculturist*, edited by A. G. Sumner, and published by the State Agricultural Society of S. C., has been received, and speaks well for an increased interest in the matter in that State. It "promises well," and we shall be pleased to welcome it to our table. This number has good horticultural articles in it.

Seedlings of Pennsylvania.—Mr. J. Jay Smith: Why is it that we Pennsylvanians do not improve and discriminate our seedling fruits? We certainly have some amongst the best apples and pears in the country; should any fine fruit come under the notice of our friend, Dr. Brinckle, or some few others, it will be brought into notice. We have many good seedling apples and pears that are hardly known out of the locality where they originated. I have often thought why it was so, and I have even gone so far as to introduce the subject among our horticulturists, particularly at agricultural and horticultural fairs, but that would be about the last of it. If I offered a half dozen of the best seedlings at any of our exhibitions, I heard no more of them. It is not the first time my humble self has tried to draw the attention of committees, but could not get a passing notice. Now, you know, Mr. Editor, that is rather discouraging to a new hand; but should, by accident, some of our seedlings get out of the county or State where they were originated, some other State will generally lay claim to it; for instance, the Smokehouse Apple is set down, by Mr. Elliott's American Fruit-growers' Guide, as a native of the State of Delaware; the Gate or Waxen Apple is said, by Downing's and Elliott's, to be a native of Virginia; but, as it happens, there are persons yet living who know something about those apples. The Gate Apple is a seedling of Paradise, Lancaster County; the seed of said apple was planted by Mrs. Beam, more than 100 years ago, her family being amongst the first settlers of this county; the apple went, for many years, by the name of Mother Beam Apple. In the course of time, there was a gate planted close to the Apple-tree, and, afterwards, it assumed the name of Gate Apple.

Mr. Niesby married into the family of the Beams—was one amongst the first settlers of Ohio; he took scions, from this same tree, out to Ohio with him, and, in course of time, the Apple was extensively cultivated in the County of Belmont, Ohio. I suppose some one thought proper to call it Belmont, which name it bears in many localities.

The Smokehouse Apple, set down to the credit of little Delaware, I now will bring home to old Lancaster County; the original tree I recollect very well when in its glory, at Mrs. Gibbon's smokehouse, near Mill Creek; from the appearance when standing, I should suppose it to have been at least 80 years old, but it is now gone. We have many trees, now, from said original, in this neighborhood, from 40 to 50 years old, and they are amongst the best kitchen or bake apples we have, coming in use in August, and lasting till March. If quite green, they make a good pie. A Pennsylvanian.

Speaking of a late article on hedges, a valued correspondent, who knows all about it, says: "Ah! if people could be prevailed on to pay the same attention to their fruit-trees! They, too, are highly ornamental, and nothing can be more beautiful than a fine garden of large pyramids, as was, and still is, the garden of my late friend, Esperen. I often spent happy moments, in the morning, at the window of my bed-room, when there, overlooking

that fine spot, that masterly piece of human skill and perseverance, and can tell you that it was a delicious sight, either in their May dress, in their summer attire, or loaded with their rich crops of luscious treasures. Intermix these with evergreens, so as to have, as Boileau says, something to cheer us up, and to break the monotony of the dismal snow-carpeting, and you will find it a great benefit to the mind depressed by the gloom of a wintry day." Another writes as follows:—

MR. EDITOR: I was much pleased with your leader in the May number, respecting "Evergreens, and other matters." What you said respecting *feeding trees* interested me, for I have tried the same thing for two years past, but without your success. I have dug trenches at what seemed to be the extremities of the roots of many of my trees, and filled the holes with rich soil, but the trees have not as yet shown any decided improvement. While the digging was going on about the trees fed last fall, I examined very carefully some of the poor soil which was thrown out from the trenches, and, to my surprise, found it full of minute fibres, the little roots of the tree, which the careless eye could not see, and which offered no resistance to the gardener's spade. I concluded that my trees were injured as much by the digging as they were benefited by the feeding. And as the circles I had dug around the trees—twelve feet in diameter—had evidently encroached upon the roots, I concluded that I must either plough up my grounds, and thoroughly manure the whole, or else let the trees take their chance undisturbed. What think you? INQUIRER.

This was careless; you should not examine the earth *after* it is dug out, but expend a little time in approaching the roots, examining for the first rootlets as you go.—ED.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.—The stated meeting of this Society was held at Concert Hall, on Tuesday evening, May 20, 1856. E. W. Keyser, Vice-President, in the chair. The following awards were made by the Committee on Plants and Flowers:—

Pelargoniums—six plants—for the second best to Thos. Robertson, gr. to B. A. Fahnestock. Specimen Pelargonium—for the best to Chas. Sutherland, gr. to Jno. Anspach. Tulips, cut flowers, twelve varieties—for the best to Geo. W. Earl; for the second best to Theodore Walter. Collection of twelve plants—for the best to Thos. Robertson; for the second best to John Pollock, gr. to Jas. Dundas. Specimen plant—for the best to the same; for the second best to Robert Buist. *Basket*—for the best to John J. Habermehl, gr. to J. Lambert. *Bouquets*—for the best pair to the same.

Special Premiums.—Five dollars to Robert Buist, for a very fine collection of seedling Calceolarias; two dollars to John Pollock; two dollars to Wm. Armstrong, gr. to Alex. Brown, for a display of Verbenas. *New Plants*—shown for the first time; a premium of three dollars to John Pollock, for Fuchsias, Queen Victoria, Prince Albert, and Mrs. Story; and one dollar to Mark Hill, gr. to M. W. Baldwin, for Veronica hybrida.

By the Committee on Fruits. *Special Premiums*—three dollars to Mark Hill, for seven varieties of Grapes; and two dollars to Wm. Grassie, gr. to Jno. Tucker, for three bunches of White Prontignac Grapes.

By the Committee on Vegetables. *Rhubarb*, twelve stalks—for the best to Saml. Cooper; for the second best to A. L. Felten. Cucumbers—for the best to Chas. Sutherland, gr. to Jno. Anspach. Asparagus, twenty-four stalks—for the best to James Jones, gr. at Girard College. Mushrooms—for the best to James Thomas, gr. to J. D. Whetham. Display by a market gardener—for the best to A. L. Felten. And a special premium of two dollars, for six very fine heads of cauliflowers, to J. J. Habermehl.

One gentleman elected a member.

OBJECTS EXHIBITED.—*Plants* from B. A. Fahnestock's—Pelargonium var. Tom Thumb, Allamánda nerifolia, Fuchsia Psyche, F. Banks of Glory, Pentas carnea, Cuphea platycentra, Azalea Mackenzie, A. variegata, Cyrtolepis longiflora, Franciscea angustifolia, Rhynchospermum jasminoides, Erica ventricosa minor. Specimen Plant—Medinilla magnifica, and a collection of Pelargoniums.

From James Dundas's.—Boronia alata, Cuphea platycentra, Centradenia rosea, Chirita mornii, Mahernia hecta, Begonia semperflorens, Fuchsia speciosa, Nurembergia gracilis, Cineraria King, Franciscea hydrangeæformis, Petunia Hermona, Columnea Scheidiana. *Specimen*—Medinilla magnifica. *New*—Fuchsia Mrs. Story, Prince Albert, and Queen Victoria. *Orchids*—Acanthophippium bicolor, Cattleya mossiæ, and Oncidium subulatum.

From Robert Buist. *New*—Lychia rotundifolia. *Specimen*—Rhynchospermum jasminoides, eight seedling Calceolarias, six seedling Cinerarias and Epiphyllum crenatum.

From John Anspach's—Pelargonium, Madame Rosatta, Azalea indiæ variegata, Leschenaultia formosa, Begonea Drujii, Ixora coccinia, and Æschynanthus speciosus.

From J. D. Whetham's.—Six Cinerarias.

From Alex. Brown's.—Six Verbenas.

From M. W. Baldwin's.—Tetratheca virticillata. *New*—Veronica hybrida, and Fuchsia magnifica.

Cut Tulip flowers, by Geo. W. Earl, Theo. Walter, and J. J. Jennings.

Basket, and a pair of bouquets, from John Lambert's.

Fruit.—From M. W. Baldwin's—Grapes: Black Hamburg, White Muscat, Cochin China, and Isabella.

From John Tucker's.—White Prentignac Grapes.
Vegetables.—By A. L. Felten.—A fine collection.
From John Anspach's.—Cucumbers.
By Saml. Cooper.—Rhubarb.
By James Jones.—Asparagus.
From J. D. Wheiham's.—Mushrooms.
By J. J. Habermehl.—Cauliflowers.
By Jno. McLaughlin.—Rhubarb.

The Horticultural Society of Maryland held its third monthly exhibition at the Hall of the Maryland Institute, on the 15th of May. The display of flowers and plants was very fine, as also were the vegetables for the season. More visiters were in attendance than at any previous monthly exhibition, and they seemed to enjoy the beauties of nature with more than common delight. Dr. Edmundson exhibited some fine plants, in bloom, and excellent vegetables.

Mr. Edward Kurtz, some excellent Pelargoniums, Azaleas, and a sprout of the Laterila Azalea, measuring three feet in diameter, half of head white, which, for beauty, was a complete gem; he also had a collection of Tulips.

Wm. C. Wilson, Calceolarias, Cinerarias, and Verbenas, &c., and a fine blue seedling Verbena, of excellent habit.

James Pentland, a collection of Calceolarias, Tulips, and Tree Peony.

Robert Halliday, a basket of flowers, a bouquet, and a collection of Verbenas, Pelargoniums, Roses, &c.

Thos. Fairley, six fine Pelargoniums and Verbenas; also, a fine Aquetigia, which deserves credit for the manner it was "got up" for exhibition.

Wm. F. Worthington, some fine Victoria Rhubarb.

Jacob Standemeyer, gr. to Mr. Geo. Brown, four splendid Cauliflowers, Beets, Asparagus, Cabbage, Lettuce, and Cucumbers; very good for the season.

Saml. Feast & Sons, Tame Fuchsias, and Cinerarias, cut flowers, and a hand bouquet.

Loudon Feast, a design for the table.

Linnæus Feast, a hand bouquet.

John Feast, a numerous collection, including some of the rarest new plants in cultivation.

John Feast, *Sec., H. S. M.*

Calendar of Operations.

JULY.

BY WILLIAM SAUNDERS, GERMANTOWN.

Vegetable Garden.—Keep up a succession of tender, eatable vegetables, by sowing at intervals during the season. Early horn carrot, dwarf beans, turnip-rooted beet, radishes, lettuce, squash, and peas, may yet be sown. In a well-managed garden, a constant supply of young vegetables should be maintained. The chief requirement to insure success, is depth of loosened soil; unless trenched 18 inches deep, vegetable growth must cease in dry weather. It has been observed, that peas saved from the earliest spring sowings, and sown immediately, will afford a fall crop, exempt from mildew. In sowing seeds during droughts, a stream of water should be first run into the drills; a much better method of insuring germination than soaking the seeds.

Succory, for winter salad, should be sown now; a deep, rich soil is necessary. This valuable esculent only requires to be known to be appreciated.

The main crops of winter cabbages, savoys, cauliflower, &c., should be planted out; if the plants are hardy, and have not got drawn and weakly, they will not suffer by removal, especially if the roots are puddled before planting.

Preparation should be in progress for setting out the main crops of celery. This plant requires a deep, moist soil; the custom of digging out trenches is a very questionable mode of preparation. In doing so, the best soil is cast aside, and the plants have nothing but the subsoil, and what manure is applied at the time, to grow in. Manure and trench the ground thoroughly, and plant on the surface; the roots will then have a depth of good soil to depend upon, instead of the watering-pot. The soil required for blanching can be taken from the adjoining surface, and, if taken out to a greater depth than the roots, so much the better, as it will prevent it from rotting by excess of moisture during winter.

Planting in single rows takes up much ground; where it is an object to economize space, the plants may be set in a bed, say five feet wide; plant across the bed in rows, 14 inches apart, the plants 6 or 8 inches apart in the row. In hilling up for blanching, the soil is thrown in between the rows.

Herbs for winter use should be gathered when in flower; just as the flowers begin to fade is said to be the best time for preserving most of their properties. The herbary was a branch of gardening of greater importance formerly than it is in these days of patent medicines. To dry them, tie in small bundles, and hang up in an airy shed.

Loosening the soil among growing crops can hardly be overdone. A broad-tined fork is a

very useful implement for this purpose; grass cuttings from the lawn may also be used, as a mulching; taking care that it is not laid down thick enough to ferment, which would render it more injurious than useful.

HARDY FRUIT.—The season of growth is the proper time to prune and train fruit-bearing trees. Look over peach-trees, and shorten in the points of those branches having fruit. This slight check to wood growth will enhance the size and flavor of the fruit. Towards the end of the month, the points of all strong shoots should be pinched off, and some removed altogether if the trees are producing much wood. An early and thorough ripening of the wood is the most important desideratum with fruit-trees. Gooseberries and currant bushes will be improved by thinning the wood, and shortening the side shoots. The fruit should also be thinned, if superior fruit is an object. Raspberries will have their fruiting period much extended by a good watering; thin out the shoots for next year's crop, and cut out the old canes as soon as the fruit is all gathered.

Strawberry plantations may be made as soon as young plants can be lifted; this is a favorable time for their removal; puddle the roots in mud before planting, and they will scarcely fail to grow, even should the weather be very dry.

Remove the mulching from old plantations, and hoe or fork the ground about them; cut out all runners, and keep all clear from weeds.

LAWTON BLACKBERRY.—This important acquisition to our available fruits deserves special attention. If you have any doubts with regard to their value, call upon your nearest friend who has been fortunate enough to secure them, and judge for yourself. A heavy mulching of well-rotted manure increases the size and quantity of fruit.

GRAPERY.—As the fruit indicates maturity, both the atmosphere and soil should be gradually rendered drier. Leading shoots that have advanced to the desired length for next year's fruiting, should be stopped at the points; and, towards the end of the month, pinch the point out of every shoot. These gradual checks to growth hasten maturity, without paralyzing the plants. It is a ruinous practice to defer thinning the wood to a late period, and then cut it out in bundles, under the pretence of "letting in light and air."

GREENHOUSE.—Plants that have completed growth, may be now taken out of the house. It is a prevalent custom to set the plants out at a stated period, without reference to their condition; a practice which deprives those who follow it from having a good crop of flowers at the expected time. This is one reason why we see so many starved-looking and flowerless camellias. Most plants make their growth immediately after flowering, and, during that process, they require their maximum proportion of humidity and warmth. The consequence of exposing them, in this tender condition, to an atmosphere and temperature so completely opposite, is so apparent, even to a novice, that a secluded, shady locality, either in the shade or under the branches of trees, is chosen to prevent total destruction of the young and tender growths. Before removing plants, therefore, to the open air, attention must be directed to their fitness; the wood must be approaching to maturity, and a degree of hardiness should be induced by a gradual withdrawal of water to the roots. A situation where they will have a full exposure to air and sun, will then be the most favorable towards a completion of wood growth and development of flower buds. The pots should also be placed on boards, or other impervious material, in order to prevent rooting through the bottom of the pots, and if they are covered with ashes, tan bark, sawdust, &c., an unnatural extraction of water from the roots, by evaporation through the porous substance of the pots, will be prevented.

Towards the end of the month, pelargoniums should be pruned close down, and cuttings put in to root; a week's exposure to the sun will harden the wood, and cause the plants to break afresh, much stronger than when pruned in a soft and succulent state. Cuttings may be planted under the shade of a wall or hedge.

Calceolaria seed should be sown this month, in order to have good plants before winter. Prepare a well-drained pot of light, sandy soil, press the surface level and sow the seed, but do not cover it. Cover with a pane of glass, and set in a shaded part out doors. To obviate disturbing the seed by surface watering, insert the pot into another, three or four inches larger, fill the space between the two with moss, and keep it always wet. The soil will absorb sufficient moisture for germination.

Cineraria, and Chinese primrose seed, should also be sown, and treated as above.

Chrysanthemums in pots should be closely topped, to keep them bushy, and prevent early flowering, so that they may be available for the greenhouse and conservatory in early winter. Two or three cuttings, placed in small pots, will form roots, and flower well if not subjected to further pinchings.

HEATHS.—Epacris, and New Holland plants in general, may be set out of doors, for a few

weeks, after their seasonal growth is completed. To grow many of them well, they should be kept constantly under cover. This is the only way to grow good heaths, provided that they are planted in good, turfy, well-drained, *loamy* soil. Bog earth will soon finish them; rather use a little leaf mould that has been well decomposed.

Cactuses.—As soon as they are past blooming, give them a shift into good, turfy, rich soil, keep them in the house, and give abundance of water, both at roots and top, by syringing. When they have made good growth, gradually withhold water, and ultimately place them in the sun, on a hard gravel-walk if possible; keep dry and cool during winter, and they will flower profusely. Avoid the common practice of growing them in brick-dust and coal ashes, if you wish to see them flower in perfection.

Begonias are a valuable class for winter and spring flowering; shift now, and get a good growth before winter. Put in cuttings of heliotropes, salvias, cupheas, torenias, &c., for winter flowering, and sow mignonette and pansy seed for the same object.

The house should now be a mass of flowers; achimenes, gloxinias, and fuchsias, will be in perfection. Keep a moist atmosphere, and shade slightly during the hottest portion of the day. Exclude currents of dry air from passing over the plants, and keep the top lights open constantly, except, of course, during heavy rains. Tropæolum bulbs should be kept perfectly dry; shake them out of the soil, and hang up in a basket in an open shed.

Flower Garden.—Cut the faded flowers of rose bushes, and make cuttings of the stems; they root readily at this season, in a shaded spot, if well-ripened cuttings are chosen. China roses, and their hybrids, that are going out of bloom, should be pruned well down; they will flower again in the autumn. An occasional watering with manure water will extend the flowering season, as well as enhance the beauty of the flowers individually.

Hollyhocks and dahlias must be securely, but neatly staked; remove lateral and weak shoots from the latter, and propagate choice sorts, by inserting cuttings singly in small pots; they will root well in the shade. Plants procured in this manner will be dried off, and the roots kept in the pots all winter. Such roots are more to be depended on next spring, and will grow more vigorously than those lifted in the usual manner out of the borders.

The coral-tree, *Erythrina crystagalli*, is a beautiful plant as a single specimen. The roots can be annually lifted, and wintered in a dry cellar.

Flower beds and borders should be kept scrupulously neat and clean; hoe all vacant spaces, but do not rake the ground. Stake all plants that absolutely require it, and let it be done neatly, using as few and as short stakes as possible, and tie loosely. Give constant attention to the removal of dead plants, withered leaves and flowers, and remove seed-pods, unless specially required to perpetuate choice varieties.

Keep box edgings neatly clipped and repaired; it can be transplanted at any season, therefore, there is no excuse for imperfections.

Lawns.—Constant attention must be given to mowing, sweeping, and rolling. There are machines which perform the three operations at one time, which might be very profitably introduced into extensive pleasure grounds.

Shrubbery And Pleasure Grounds.—The application of water to recently planted trees, requires discrimination. Where the soil has been prepared as formerly recommended, there will be no necessity for watering deciduous trees, unless they are growing luxuriantly, and the weather prove very dry. Evergreens have a greater extent of active foliage, and, in consequence, require a more regular and constant supply of moisture to meet the continued evaporation by the leaves. When water is applied, draw a little of the soil from the base of the plant, so as to form a small basin, and give a good soaking; then return the soil loosely into its former position. Mulching with stones is a good practice in deep soils; the heat they absorb draws up the moisture from below by capillary contraction, producing a somewhat different effect from a mulching of loose matter, as manure, &c., which acts rather as a preventive from surface evaporation than furnishing the contained water in this available manner. The latter practice is perhaps the best in shallow ground.

Now is a good time to observe and take notes of the various effects of grouping trees and shrubs, and marking those for removal where they are crowded. Defects are more apparent now than when planting season arrives. Live fences, hedges of Osage orange, honey locust, &c., should be cut frequently during growth, if well established. The greatest fault of these fences, especially with the Osage orange, is its excessive growth. Summer pruning is the best means of counteracting this; if allowed to grow at random, and pruned only in winter, it will be impossible to keep a neat and satisfactory hedge. This will prove to be its greatest drawback as a fence for general farming purposes. All farmers cannot give proper attention to these matters while they are busily engaged with their crops.

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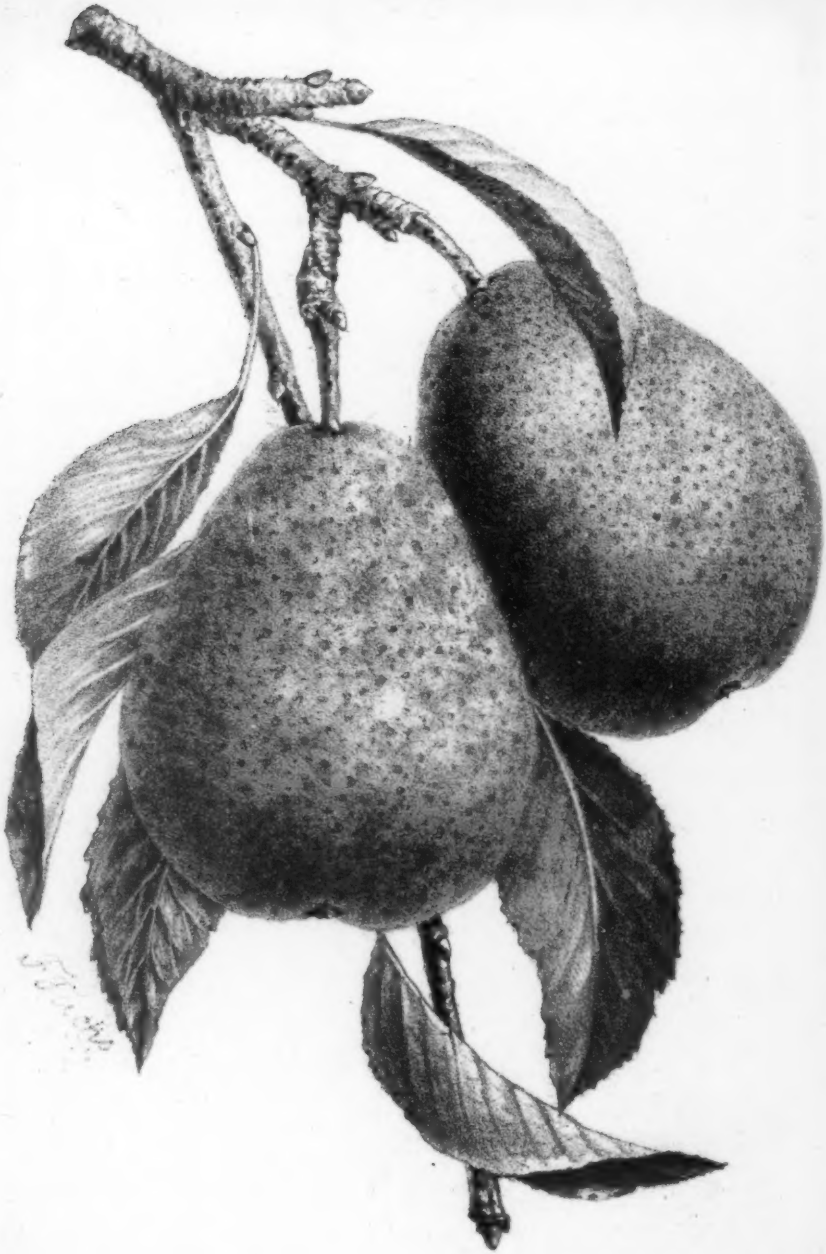

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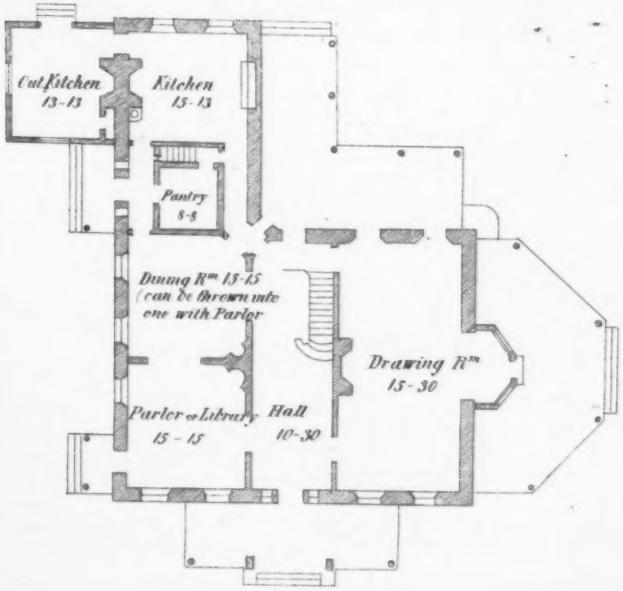

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